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STUDY PROJECT

WHO WILL STAND THE NORDIC GUARD?

DETERMINANTS, OPTIONS, AND BILATERAL CANADIAN-US RESPONSES
TO THE THREAT ON NATO'S NORTH FLANK

BY

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WHO WILL STAND THE NORDIC GUARD?



MIKE LEA/The Whig-Standard
Cpts. Sam Galante (left) and Jeff C. stand guard in 1920s uniforms

Determinants, Options, and Bilateral Canadian-US Responses
to the Threat on NATO's North Flank

WHO WILL STAND THE NORDIC GUARD?

Determinants, Options, and Bilateral Canadian-US Responses
to the Threat on NATO's North Flank

ABSTRACT

As of November 1989, the government of Canada has deleted its commitment to deploy the Canadian Air-Sea Transportable (CAST) Brigade to reinforce the Norwegian Army in the event of a Soviet ground attack in the Arctic region in order to consolidate all Canadian ground forces committed to NATO in the defense of West Germany. This paper argues that the deletion of the Norwegian commitment poses an unacceptable risk to NATO's north flank, which could result not only in the loss of Norway, but also could severely reduce the capability of NATO's North American partners to reinforce the Western Europeans. Furthermore, this paper argues that the marginal benefits that the consolidation of Canadian commitments in West Germany are insufficient to justify the increased risk in the north, and will be further diminished in the decade of the 1990s because of arms control and political developments. The paper concludes by recommending that the US and Canada pursue a bilateral strategy regarding Norwegian reinforcement, consisting of coordinated plans to restructure Canadian Forces and US Army light infantry units into robust, rapidly deployable formations; provide for a pooling of strategic military airlift, in essence including Canadian units in US time-phased troop deployment plans; and re-designing NATO's military command structure in order to raise the north flank to its rightful strategic significance and to highlight the Canadian contribution.

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AUTHOR'S PREFACE

Until last November, Canada's ground-force contribution to NATO consisted of two major components, a mechanized brigade group in West Germany and an infantry brigade which was to be deployed from Eastern Canada to reinforce Norway. Canada has now divested itself of the Norwegian commitment in order to consolidate all its deployed and contingency forces in defense of West Germany.

In his book Defending Canada, Royal Military College Professor and noted Canadian defense expert Joel J. Sokolsky recommended that the United States and the other NATO allies urge Canada to abandon the West German commitment and redirect its efforts to Norway where, with improved airlift and prepositioned equipment, it could make a much more effective contribution.¹ As a U.S. Army infantry officer assigned as a visiting defense fellow at Queen's University, working under Professor Sokolsky's supervision, I thought I might be qualified to study that recommendation and develop U.S./Canadian policies which would improve Norway's defense and the security of the North Atlantic Alliance. I have purposely chosen to study only the ground force component of Norwegian reinforcement. Plans for tactical air reinforcement also exist, and they may also merit a similar analysis, but they fall outside the scope of this study because they fall outside the scope of my expertise.

As I reflect on what I have written, it strikes me that four distinct themes permeate and, as an aid to the reader, I would like to identify them.

The first is the requirement to synchronize allied air, ground, and sea forces in and over the Norwegian Sea and Norway itself. I have tried

to illustrate this need for synchronization through the examination of historical example and by analysis of what I perceive to be the most likely scenario for a modern Norwegian campaign. My purpose is to identify shortcomings in NATO's military structure which hinder a coherent Norwegian defense.

Second is the relationship between activities at the tactical level and the outcome of conflict at the operational and strategic levels. My research has convinced me that Norwegian defense planning provides far too few reinforcements, but the evidence also suggests that a modest increase in the number of combat units reinforcing Norway will yield disproportionate benefits in ensuring that a Soviet attack there does not succeed.

The third theme of this study is the requirement for burdensharing, a term which I have found causes Canadians to avert their eyes because it normally precedes an appeal for more money. That is not my intent. On the contrary, my research into Norwegian defense suggests that it is not a problem to be solved by throwing money at it, but rather by increased specialization of roles played by each of the concerned NATO allies, especially in an era of declining defense budgets. A solution in which Norway, Canada, the United States, and other allies make the contribution for which each is best suited will result both in an efficient defensive posture and in the confidence needed to maintain alliance solidarity.

The final theme I would like to highlight is the interplay between politics and military activities. This relationship I believe to be characteristic of security policy in general, but I find it more pronounced in Norway because of that country's geo-political position and

the relatively small numbers of forces involved in its security. In other words, more so than in Europe's central region, a failure to address tactical shortcomings in Norway could have serious political consequences.

Lest a Canadian reader take offense, it appears to me that existing problems in defending Norway are more the fault of the U.S. military than of Canada's. Despite the emphasis on joint-service cooperation which was the goal of the Goldwater-Nichols initiative, the evidence suggests to me that, for the U.S. military, NATO still means Army and Air Force in Germany, Navy and Marine Corps in the North Atlantic. The notion that ground and air power may provide the decisive edge in a maritime theater seems largely unappreciated due, I would argue, to our confusion between the certainty of our need to prepare for war in Germany and the certitude that a European war must start there. Such thinking might have been appropriate in 1914, but since the advent of air power it is clearly inadequate, and is supported neither by the historical record nor by the present correlation of forces.

Such insight as I've developed about this idea is a result of a study I did in 1984 at the Armed Forces Staff College, in Norfolk, on the Russo-Japanese War. What struck me in this study was the Japanese use of a field army, working in close cooperation with a small naval force, to destroy the Russian Pacific Fleet. The concept of land forces being used to accomplish a naval objective, updated and broadened to encompass air forces, led me to appreciate the significance of current Soviet threat to Norway and, through Norway, to the North Atlantic Alliance.

If the reader will permit a brief digression, my Russo-Japanese war project also provided me with an inspiration, a junior officer who

diligently and courageously detailed the results of the twentieth century's first major joint operation. His name was Lieutenant Commander Newton McCulley, USN, who was an observer at Port Arthur in 1905 and endured both Japanese shell fire and Russian imprisonment to record the effects of land- and sea-based guns on ships of all classes. His example has inspired me to persevere in the face of research difficulties and to endure skepticism.

But this paper was written for the living, and not the dead. In the year that I've spent at Queen's, I've also had the privilege of meeting many of the cadets at the Royal Military College of Canada. Because of my previous assignment, where I trained all the U.S. Army's newly commissioned infantry lieutenants, I felt very much at home with Canadian cadets. I am no doubt biased, but I find these young people the best Canada has to offer, just as I found U.S. infantry lieutenants the best of their generation in my country. I mention this because of my deep seated conviction that those of us who write about and plan military activities must never forget that, at the cutting edge, it is young people like these who execute our schemes, and our most important duty is to make sure that we assign them important missions and then provide them every possible means with which to succeed.

Kingston
May 1990

Adolf Carlson
LTC, U.S.Army

SECTION I

INTRODUCTION: CANADA'S 1987 DEFENCE WHITE PAPER AND THE PROBLEM OF OVERCOMMITMENT

Since the late 1960s, the Canadian land forces' commitment to European defense has forced Canada to divide its efforts between two widely separated regions. The 4th Canadian Mechanized Brigade and the 1st Canadian Air Group stationed in West Germany are deployed and structured to participate in the battle for NATO's Central Region. The Canadian Air-Sea Transportable (CAST) Brigade Group and two Rapid Reinforcement fighter squadrons, stationed in Canada, were until recently committed to the defense of Norway.

The divergence of these two commitments posed virtually insurmountable problems for Canada. Questions about the timing and circumstances under which Norwegian reinforcement would be ordered raised doubts that the CAST brigade would arrive in time to deter a Soviet attack or to defend against such an attack once launched. The maintenance of widely separated, trans-Atlantic lines of communication required strategic transport, naval, and air forces which exceeded the resources available to Canadian defense planners.

This regional divergence also imposed divergent force design requirements. A Canadian land force tailored for combat in the Central Region must be designed for mechanized war employing tanks and armored fighting vehicles. Such a force could not deploy to Norway in a timely manner, nor could it operate effectively in the rugged terrain which characterizes that region. Further, a wartime theater in Germany would have a much more mature support infrastructure than Norway, hence theater logistics and medical capabilities must be fielded for a Norwegian

deployment which are to a degree already in place in Germany. In sum, support of both commitments required two different armies, neither one well suited to assume the role of the other. For Canada, the requirements exceed the resources available. The 1986 exercise BRAVE LION underscored these deficiencies. A large air and sea deployment of CAST Brigade elements to Norway, BRAVE LION demonstrated the combat capability of the forces deployed, but exposed serious shortfalls in the timeliness of sealift and the ability of the military establishment to support the units deployed.²

In its 1987 White Paper on Defence, Canada announced it would resolve this dilemma by deleting its commitment to Norway and consolidating the land force commitment in Germany. The task of the forces previously committed to the CAST Brigade would shift from Norway to reinforcement of the Brigade in Germany, providing a two-brigade Canadian mechanized division in the Central Region.³ This move was intended to double the size of NATO's Central Army Group (CENTAG)'s operational reserve (the role of the Canadian Land Force) and, with the prepositioning of major items of equipment, to alleviate the sealift requirements. With the nation's resources devoted totally to the German commitment, the ground forces were to be expanded, modernized, and, in the words of General Paul D. Manson, Chief of the Defense Staff, "the ultimate result will be solid, militarily viable commitment to NATO's deterrent forces in Europe of which Canadians can be proud."⁴

The White Paper claims that Canada consulted NATO prior to dropping the Norwegian commitment, and that "satisfactory alternative arrangements for the defense of northern Norway are in hand."⁵ Other sources, however,

indicate that while NATO allies may have been informed, their response was mixed.⁶ Earlier proposals to consolidate all Canadian efforts in Norway were strongly opposed by the U.S. and the FRG, after initial signals of concurrence, which undoubtedly led Canadian defense analysts to view the German consolidation as the option of least diplomatic resistance.⁷ As of this writing plans are still being finalized to replace the Canadians, with a composite force of European, US, and Canadian units.⁸

Not all Canadian experts accept the assertions of the 1987 White Paper. Ambassador John Halstead, Canadian Ambassador to NATO from 1980 to 1982, commented that "the consolidation proposed in the White Paper will not put an end to the dispersion of our forces between Canada and Europe, nor their fragmentation into ground and air formations. And it will have a significant impact on our relations with Norway and our other allies, in spite of the efforts of the White Paper's authors to downplay that aspect."⁹

This paper will argue that a strong, decisive plan to defend Norway is essential for the success of NATO. Soviet occupation of any significant portion of Norwegian territory would greatly enhance their ability to interdict NATO reinforcements coming from North America, and Norway's World War II experience suggests strongly that the whole country could fall into enemy hands before the Norwegian forces could mobilize in response. Furthermore, technological advances may well allow Soviet forces operating from Norwegian bases to negate much of the U.S. capability to deter or retaliate against an attack on Central Europe, especially if further theater nuclear arms control agreements reduce the numbers of available theater nuclear weapons. Thus the CAST Brigade's redirection to Germany is inconsistent with the capabilities NATO will

require in the 1990s and beyond.

Nor is the consolidation in Germany consistent with the rest of Canadian strategy. Canada claims to have a strategic interest in the Arctic region.¹⁰ If the Soviets seize Norway, the Canadian Forces charged with Arctic security, mainly ASW and coastal patrol craft, would find themselves in direct confrontation with the entire Soviet Northern Fleet and tactical air forces of the Soviet Northwestern theater, easily capable of negating Canada's pretensions to Arctic security and the Canadian contribution to the security of trans-Atlantic Sea Lines of Communication (SLOCs).

Finally, the 1987 White Paper's approach to the employment of land forces is not consistent with the Conventional Forces in Europe (CFE) arms control initiatives being negotiated. If those negotiations are successfully concluded, over 150,000 English-speaking troops will be removed from continental Europe,¹¹ and it is reasonable to assume that the Canadian public will put extreme pressure on its government to ensure that some of the 7100 Canadian troops in Europe are included in that withdrawal. In that case a threat to sever the Sea Lines of Communication between North America and Europe could end Canada's contribution to European security.

This paper will examine these issues and propose bilateral U.S.-Canadian remedies to the strategic dilemma posed by an undefended Norway. It will explore the insights provided by the World War II experience, survey the strategic situation as it exists today and as we can reasonably expect it to look in the 1990s, and conclude with an overview of possible North American responses. Significant problems will always remain. As

shall be shown, Norway's geography and relatively underdeveloped infrastructure pose extreme difficulties for military operations. Coupled with the constraints imposed by Norwegian defense policy, the country represents a challenge worthy of even the most capable and best-resourced military planners. Nonetheless, this paper will contend that it is within the capabilities of the North American countries to jointly prevent Norway from becoming NATO's undefended flank and an attractive target for Soviet aggression.

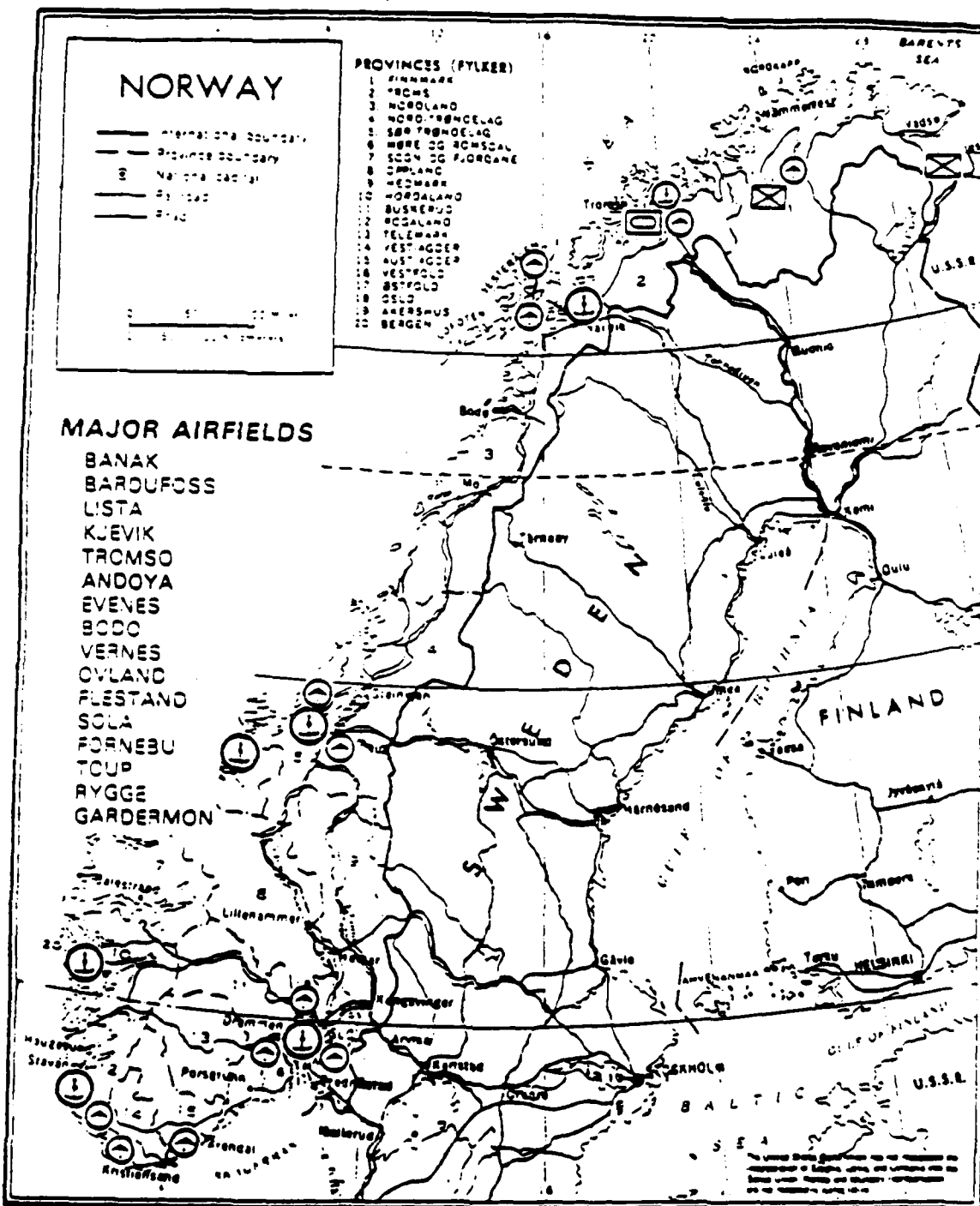
SECTION II: THE ORIGINS OF NORDIC SECURITY POLICY

NORWAY'S GEOGRAPHY, DEMOGRAPHY, AND POLITICS (see map 1)

A country 1,610 km (1,000 miles) long, 430 km (270 miles) across at its widest, 7 km (4 miles) across at its narrowest, with 3,220 km (2,000 miles) of coastline indented with narrow fjords up to 161 km (100 miles) long, Norway's geography poses difficulties for all types of military maneuver.¹² From the coastline the terrain rises abruptly to about 2,000 feet, with some peaks above 4,000 feet. Communications from the coast to the interior are extremely sparse, and those which do exist tend to follow river beds dominated by mountains on each flank.

One third of the length of Norway lies above the Arctic circle, and in November these areas typically experience seven hours or less of daylight. The climate is tempered by the warming effects of the Gulf Stream; nevertheless, the extremes of cold and darkness of North Norway have a greater influence on military operations than any where else in NATO. The ground is frozen from mid-October to May, and snow as deep as 152 cm (60 inches) typically covers the ground during that period. Snow during the winter and soft ground during the thaw make vehicular movement very difficult, and these factors are exacerbated in many areas by steep cross compartments. Temperatures as low as minus 58 degrees F have been recorded. From November to March gales are common, and during the summer months fog is often encountered. In the south, milder temperatures, flatter terrain, and better communications make the terrain more conducive to military maneuver, especially in the lowlands around Oslo. In sum, each season poses its challenges, and none is ideal for military operations, but in general the months of March and April, before the

MAP 1: NORWAY, SHOWING
MAJOR AIR, NAVAL, AND MILITARY
INSTALLATIONS



From USAWC NATO Reference Text, p 78

spring thaw, seem to offer the best combination of factors for attack.¹³

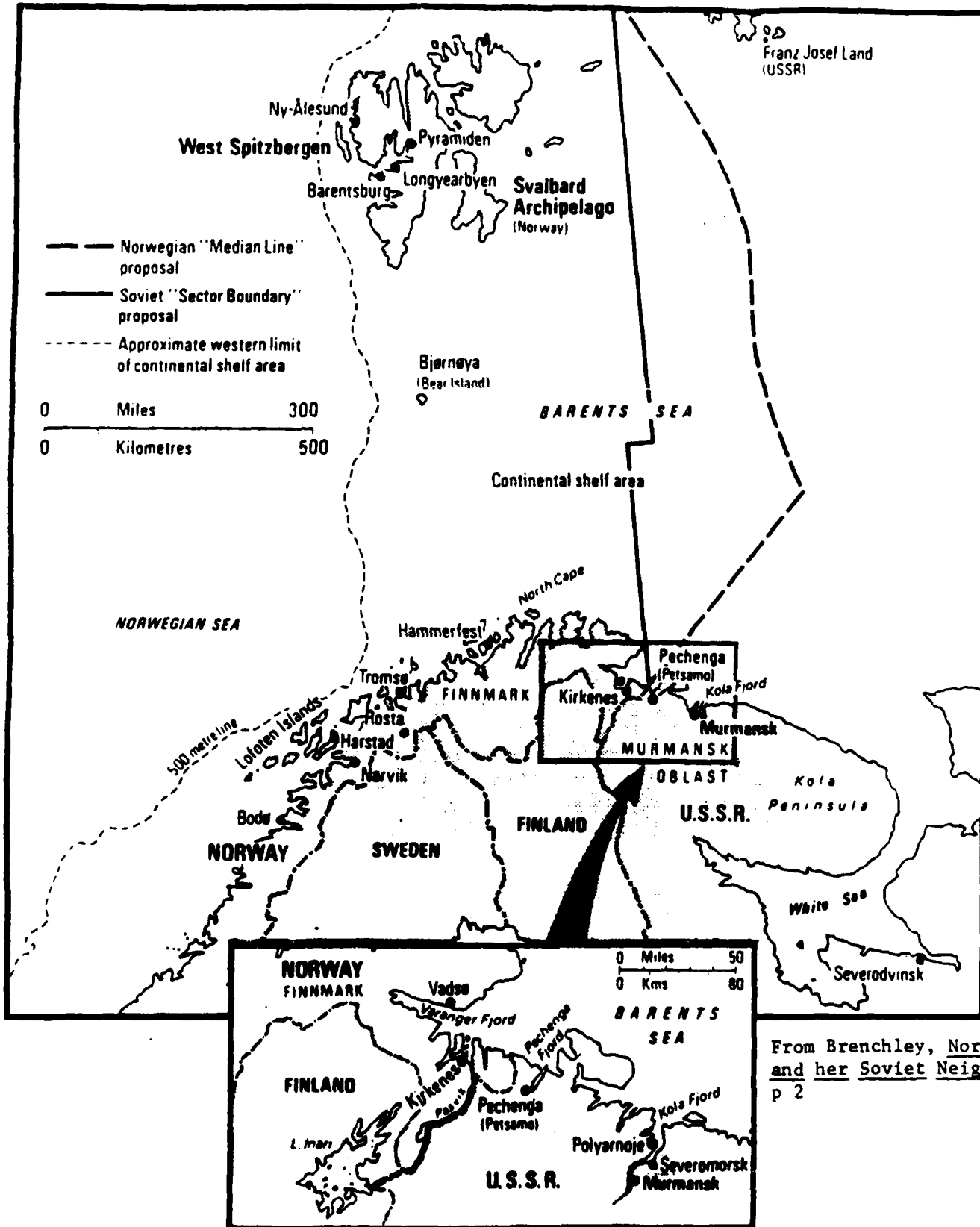
Norway is fortunate in having one of the world's most homogeneous populations, with no significant ethnic or political minorities. The government is a constitutional monarchy, with an executive consisting of a king who is advised by a cabinet of ministers chosen from the member of a 155 person parliament (Storting). A minority government has ruled Norway since 1981, with power passing last year (1989) from the Labor-Socialist Left party coalition to a coalition of Conservatives and Christian Democrats.

With its 321,000 square km (124,000 square mile) area and population of 4.2 million, Norway is one of the least densely populated countries in the world. Most of the people live in the coastal areas, with the largest concentrations in the south. Norway's cities contain an extremely high concentration of wooden buildings which throughout their history have been vulnerable to severe fire damage. This architectural characteristic increases the danger to the Norwegian people in the event of war.

Norway's economy is characterized by full employment and steady growth. As one might expect, Norway maintains one of the world's largest merchant fleets, which carry its exports of oil, electro chemicals, electro metallurgical products, pulp and paper, and canned fish and fish oil. Norway imports grain, raw materials, textiles, iron and steel, machinery, and fuel. Norway currently has a trade deficit which is being diminished by the export of offshore oil.

In Finnmark, Norway's northernmost province bordering on the Soviet Union, high cliffs render much of the coastline inaccessible, with landing sites located only at improved jetties at the settlements, (see Map 2). Rivers running to the north made east-west movement and communication

MAP 2: THE NORWEGIAN ARCTIC



From Brenchley, Norway and her Soviet Neighbor,
 p 2

extremely difficult. Some routes cross fjords, and passage is only possible by civilian ferry. In the Winter many lakes freeze hard enough to support vehicular traffic. The population of Finnmark is extremely sparse, with a total of only about 80,000. The small population and remoteness of this region have resulted in an underdeveloped network of roads, communications, and medical services. Elsewhere in Norway, where the population is more dense, these services are well developed.

HISTORICAL ROOTS OF NORWEGIAN DEFENSE POLICY

In 1985 the man who would become the Norwegian defense minister, J. J. Holst, wrote that "military technology and the constellation of power relationships had forced Norway, inexorably, into the vortex of great power politics."¹⁴ Indeed, Norway's political history is a saga of attempts to exploit, avoid, or break free from the influence and interference of countries whose designs on Norway took no account of Norwegian interests.

The Nordic Peninsula lies within the influence spheres of three traditionally contending powers, Russia, Britain, and the dominant Central European power, first France and later Germany. Because of its many sea ports providing access to the Atlantic, Norway was also a prize in a smaller Scandinavian power rivalry between Denmark and Sweden. During the Napoleonic Wars Norway was a Danish possession which, because of Copenhagen's support for France, made the Norwegians technical enemies of Great Britain, even though the British were their major trading partners. In 1814, in order to punish the Danes and compensate the Swedes for the earlier loss of Finland to Russia, Britain compelled Denmark to agree to the terms of the Treaty of Kiel, which awarded Norway to Sweden.¹⁵ This

began the period of unpopular, if not particularly harsh, Swedish union.

Sweden agreed to give Norway its independence in 1905, but the terms of disunion led to the most serious intra-regional Scandinavian crisis since the eighteenth century. Sweden demanded that Norway dismantle the fortifications on what was to become the Swedish/Norwegian frontier. The Norwegians refused. Troops on both sides were mobilized, and there was a risk of war. Russia desired to maintain the peace in the Nordic region, however, and so persuaded Sweden to accept the terms of a compromise, whereby some of the fortifications would be left intact and a neutral buffer zone would be established between the two countries.¹⁶ This compromise defused the last serious risk of war between Scandinavian countries.

The crisis of 1905 caused a thorough review of Norwegian security policy. If tensions with Sweden were renewed, Norway was clearly unable to defend itself without assistance. Because of trading relations and geographic position, the country to which Norway naturally looked for its protection was Britain, which in 1907 concluded the so-called Integrity Treaty, by which the Royal Navy was obliged to guarantee Norwegian sovereignty.¹⁷ For the next 33 years Norway's defense policy rested upon the fundamental assumption that Britain would protect it and that as long as "Britannia ruled the waves" Norway would be safe. In the words of the Norwegian Prime Minister in 1908, "We trust in the British nation."¹⁸

Norwegian faith in British guarantees was tested in 1914, when the guarantee of Belgian neutrality proved no deterrent to the German invasion. On 1 June 1916, however, that faith seemed vindicated. On that date the Royal Navy drove the German Fleet from the Skagerrak, the arm of

the North Sea which separates Norway from Denmark, and inflicted such heavy losses that German surface ships were never again to venture out in strength. Some danger to Norwegian shipping from submarines persisted after this engagement, remembered as the Battle of Jutland, but Germany was unable to involve Norway in hostilities for the remainder of the war.¹⁹

Norwegian faith in the deterrent value of British sea power endured to shape its defense policy in the period between the two World Wars. At this point Norwegian and Swedish policies began to diverge. Unlike Norway, Sweden found itself threatened by two potential enemies, and without a readily available protector like Britain. As a result, Sweden developed a policy aimed at an independent capacity to survive an attack from either Germany or the Soviet Union.²⁰ In contrast, Norway chose to continue its reliance on Britain, and fielded a defense force capable of defeating only small border incursions, such as raiding parties which might penetrate a naval blockade. As tensions rose in Europe, the arguments supporting these positions hardened. The Sudeten crisis, as an example, was cited by the Swedes as illustrating the folly of British guarantees, and simultaneously by the Norwegians as proving that large armies provided no real security.²¹

One point on which all the Scandinavian countries did agree was that certain diplomatic problems during the 1914-1918 war were caused by differences among them in the implementation of neutrality. Taking the initiative, Sweden convened a conference in Stockholm during which, on 27 May 1938, Denmark, Finland, Iceland, Norway and Sweden signed a declaration establishing uniform rules of neutrality.²² This agreement had little effect on up-coming events, but it was characteristic of later

Swedish attempts to direct defense and security policy throughout the Nordic region.

The Norwegian faith in the security provided by Britain was flawed by a failure to appreciate the impact of technology on the correlation of forces in the region. If the Royal Navy ruled the waves, the Luftwaffe ruled the skies (at least in 1939 and 1940), and the air arm was the trump card which allowed Hitler to compensate for his weaker Navy. All this would become painfully evident on 9 April 1940, a date with the same terrible significance for Norwegians as 7 December 1941 has for Americans.

WARTIME EXPERIENCE

In October 1939, the Chief of Hitler's Naval Staff, Grossadmiral Erich Raeder, considered the options available for the coming war against the Western democracies brought on by the invasion of Poland.²³ Ruefully, the German Navy remembered its ineffectiveness during the First World War and its inability to break the hunger blockade imposed by the Allied navies. The problem was to keep the fleet from being bottled up in the Baltic Sea, and suggested that Germany control both flanks of the Danish Straits and seize bases on the open ocean. Hence the German Navy pressed for the invasion of Denmark and Norway prior to the invasion of France.

Raeder's recommendations were insufficient in themselves, chiefly because in 1939-40 the German concept of war was that a repetition of the 1914-18 experience was to be avoided at all costs. Rather than a protracted world war, Hitler in 1940 envisaged a war limited to the European continent in which German objectives could be accomplished before the British Navy could impair Germany's war making potential. His concern

with Scandinavia was more oriented around the post-war Europe of his imagination, in which the region's mineral wealth, especially Swedish steel, would enhance the strength of Germany's empire.²⁴

The neutrality of Sweden, Denmark and Norway made Hitler anxious. He feared that Britain, using diplomatic or military means, would be able to compel the Scandinavian countries to suspend trade with Germany.²⁵ But a German invasion of Denmark and Norway would be fraught with the greatest risks. It would involve joint army-navy-air force coordination on a heretofore unheard of scale, and amphibious landings, for which there was no historical German precedent. Worse, German landings would have to be accomplished and sustained under the very nose of superior British naval forces in the North and Norwegian seas. Rehearsal was out of the question, for it would have compromised surprise and, besides, time was not available.²⁶ The most favorable time for the attack was April 1940, and the major objectives would have to be seized prior to May, the time scheduled for the attack in the West.²⁷ If the Norwegian campaign were bogged down during the campaign in France, no forces could be spared to reinforce it, and there was a distinct possibility that German units in Norway would be isolated and written off.

Surprise was seen as the key to success. If the Germans could consolidate their beachheads prior to the mobilization of the Norwegian Army, it was hoped that the government in Oslo would find itself faced with a fait accompli and be compelled to accept generous German terms in exchange for the rights to use airfields, ports, and communications links. To achieve surprise, elaborate deceptive measures were taken to support and sustain the landings. Key commanders were sent into Norway on tourist visas prior to the invasion to conduct reconnaissance. Their uniforms

were sent separately in diplomatic pouches.²⁸ Merchant ships were secretly outfitted for support of military operations, in so-called Tanker and Export Echelons. These were dispatched prior to the invasion fleet to enter Norwegian ports under false pretenses to be in place when the troops landed.²⁹ Further attempts were made to maintain the appearance of normal relations between Germany, Norway and Denmark, attempts that were in large part successful due to the targeted countries' policies of offering no provocation for attack. After all, neither country saw itself involved in the continental crisis or as having offended the Germans in any way. That indications were not taken seriously even after the German attack began was revealed by the fact that the chief communications officer of the Norwegian Naval Staff was a dinner guest of the German Air Attaché the evening prior to the landings, when German troops were entering Norwegian waters, and was not called away to his post until 2330 hours, local time.³⁰

One aspect of the German invasion of Norway which has received more attention than its historical significance merits is the role played by the traitor Vidkun Quisling. Although Quisling had a potential propaganda value and was certainly a major embarrassment for the Norwegian government, Hitler never seriously considered his National Union party, the Norwegian Nazis, as having the popular support it claimed. The Germans rebuffed Quisling's attempts to get them to support a fascist coup-de-etat, assessing prudently that the loss of surprise which they would risk by including Quisling in their planning was a much more important factor than the limited and unproven political leverage he claimed he could give them. Besides, German control of the government

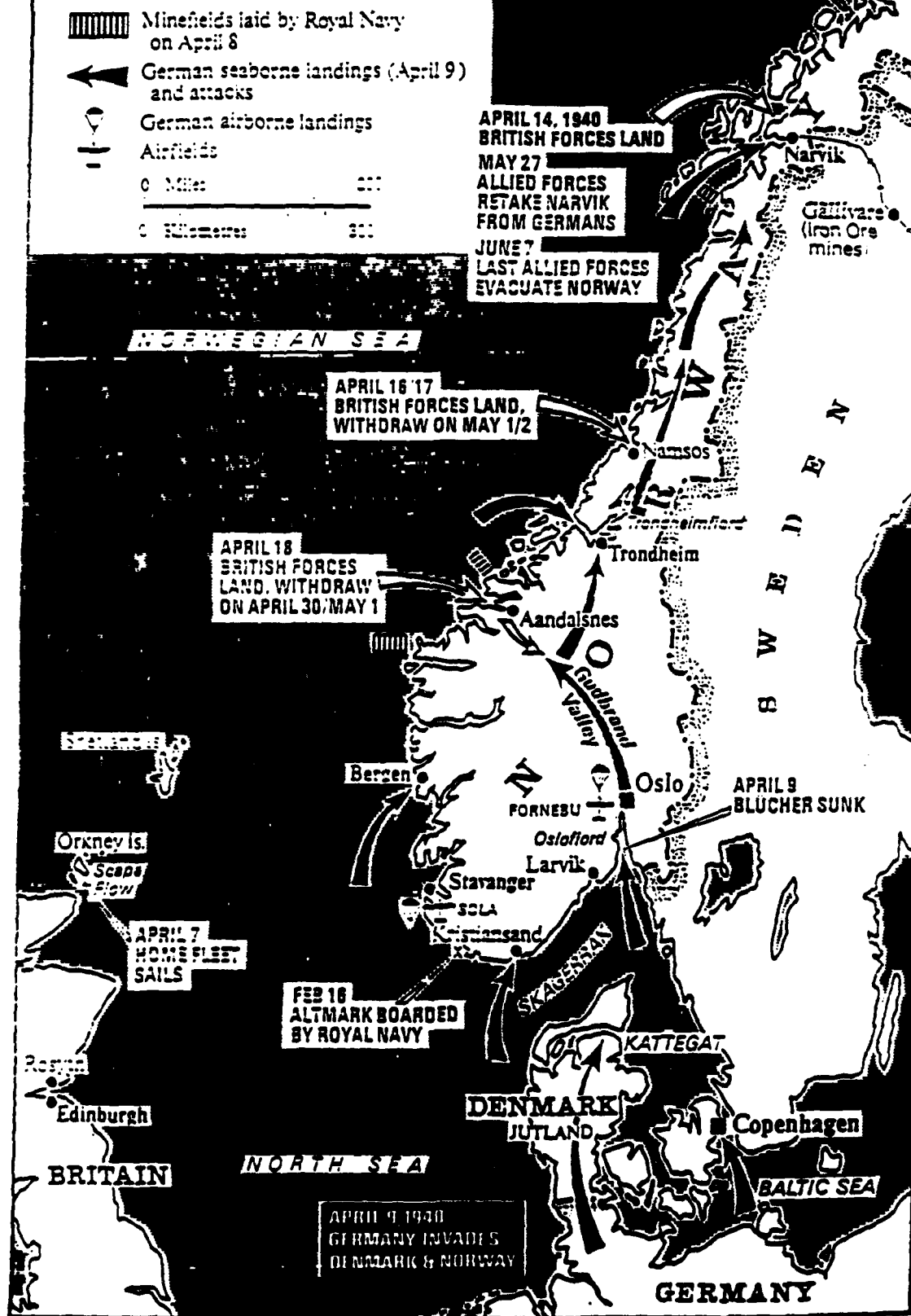
recognized by the Norwegian people would probably be more useful in attaining concessions than a puppet regime with no legitimacy.³¹

Perhaps the most remarkable aspect of the German plan was the boldness of its scope. Allied analysts suspected that the Germans were capable of operations against Denmark and Southern Norway, but were shocked into disbelief when they learned that the Germans had landed all up the coast as far north as Narvik.³² Yet, the German plan from the beginning called for the seizure of bases in Narvik and Trondheim for use in submarine operations, to control all access to Swedish iron and steel, and to pre-empt any British attempt to seize a Scandinavian base.³³ The Germans concluded that if a campaign in Norway were to be undertaken, the seizure of the whole country (as opposed only to its southern part) would not increase the risk appreciably and would pay significant dividends.

The German assault began on the morning of 9 April, consisting of simultaneous landings at seven locations, ranging from Oslo to Narvik. (See map 3.) The German invasion fleet employed 21 surface combatants and 28 submarines in the face of a Royal Naval force that would eventually number 34 surface combatants (including two aircraft carriers, one of which was sunk by German battleship) and some two dozen submarines. The landings were carried out by fewer than 10,000 troops, the assault echelons of seven divisions.³⁴ At no point was the landing force greater than 2,000 troops.³⁵ The Germans also employed one parachute battalion, the first combat use of airborne troops, which proved very successful.³⁶

The one area where the Germans did not scrimp was in air power. Some 500 combat planes and 500 transports were employed in seizing Norway.³⁷ These forces were assigned two tasks. First was the neutralization of Norwegian air units, a minor difficulty considering the small number of

The Overrunning of Norway



FROM LIDDELL-HART'S HISTORY OF
THE 2D WORLD WAR, P. 50

obsolete aircraft in Norway's Air Force. Second, and more importantly, these planes were to neutralize the threat of the Royal Navy, both by attacking British ships and by flying resupply missions in lieu of resupply ships in order to deny the British easy naval targets. The air force was the decisive factor. In surface engagements the Royal Navy destroyed 13 major surface combatants and six submarines, and were virtually able to destroy the Export and Tanker echelon.³⁸ Nonetheless, German air power prevented effective British counter-landings and kept German forces supplied.

All the German landings were successfully completed before nightfall on the first day, with the only serious opposition encountered around Oslo. Even the Norwegian coastal batteries were ineffective, as the landings were essentially complete before the troops could man the guns. Beachhead consolidation and the landing of follow-on echelons continued over the next few days, while Norwegian forces in the interior began to mobilize to prevent the German conquest inland.³⁹

The Norwegian Army structure provided for seven divisions, a number equal to the number of German divisions attacking them, but their strength was almost totally in reserve. Without the time to mobilize, they existed for all practical purposes only on paper.⁴⁰ To prevent a total collapse before the Norwegian Army could mobilize, Britain and France decided to land ground troops in Norway.

The first landings of Allied troops began at Narvik on 14 April. Three British and three French Battalions landed there to reinforce the four Norwegian Battalions fighting the German troops landed five days earlier. (See map 3.) On 18 April two British brigades landed at Andalsnes to assist the Norwegians defending the valleys running from Oslo

to Trondheim, where the Germans were attacking against the only serious resistance in the campaign to gain control of the Norwegian heartland.⁴¹

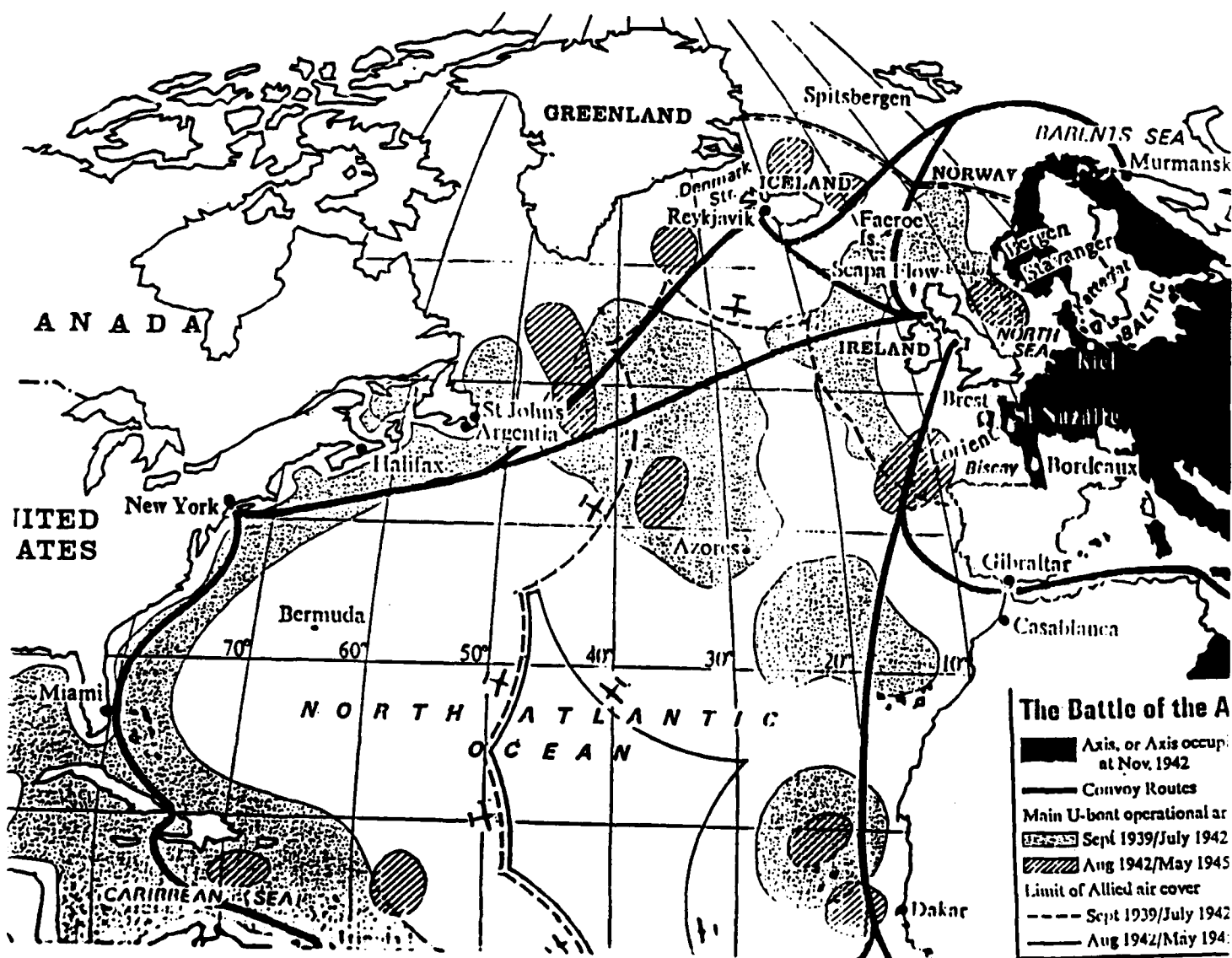
The Allies were able to land troops in Norway so quickly because at the time of the German invasion they were poised to launch an operation to occupy Norway and deny the Germans the use of Norwegian ports and Swedish iron ore. Once Norwegian neutrality was violated, operations in Norway became a race between the Germans and Allies to see how fast the units in place could be reinforced. Because of their superior air power, the Germans were able to win that race, deploying some 80,000 troops compared with 45,000 Allied troops.⁴²

Still, however, Allied operations in Norway caused the Germans some serious problems. Allied troops landed at Andalsnes to reinforce Norwegian units fighting north of Oslo prevented the Germans from consolidating their conquest of the interior until the first week in May. With better coordination between Allied and Norwegian units, and with increased air support, these units might have been able to keep the Germans penned into a defensive pocket centered around Oslo, thereby preventing the link up of German forces, which would then have been vulnerable to defeat in detail.⁴³ The Allied forces landed at Narvik captured the town and actually beat the Germans, who contemplated the humiliation of internment in Sweden rather than surrender. Signs of impending attack in France caused the Allies to evacuate Narvik, however, and for all practical purposes the campaign was over by mid-May.⁴⁴

The conquest of Norway brought the German military immense prestige, secured its supply of iron ore, and gained submarine and air bases. The infliction of serious losses upon the Royal Navy demonstrated the

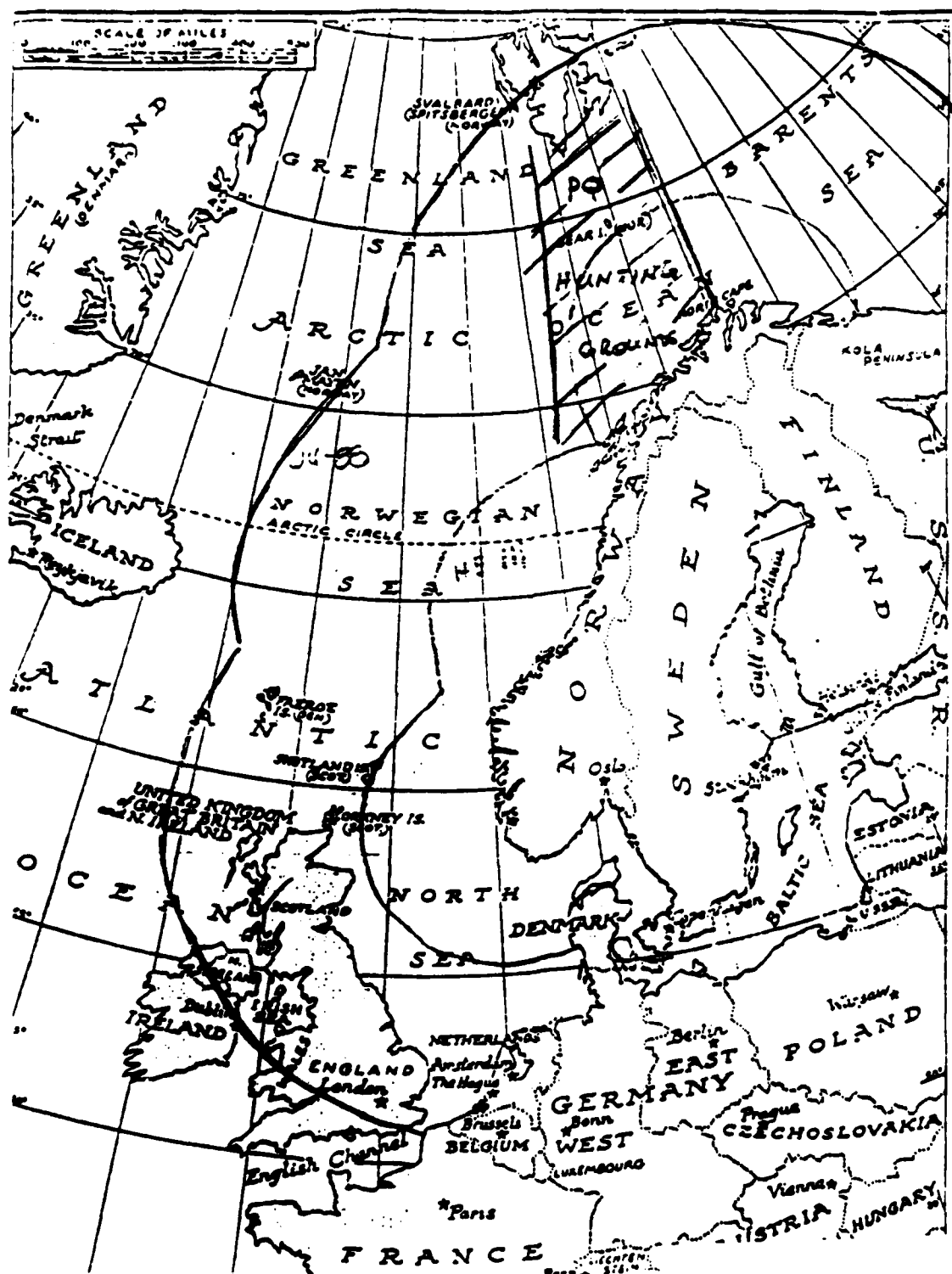
vulnerability of naval vessels to air power, although the German Navy was also seriously damaged. Over the long run, however, the Germans chose not to exploit most of Norway's operational advantages. The fall of France provided submarine bases that were used far more extensively than those in Norway. The need for combat aviation in other theaters, especially after the invasion of Russia, stripped away many of the air force units originally deployed in Norway. Despite a continued Norwegian resistance, a relatively benign occupation policy prevented any organized partisan threat to Germany's primary military use of Norwegian territory, the support of its Finnish ally.⁴⁵

Still, events would demonstrate Norway's potential as a base for convoy interdiction. In the fall of 1941 the U.S. and the U.K. began to dispatch convoys (designated with the code letter "PQ") on the so-called Murmansk run to support their new Soviet ally. (See Map 4.) The Arctic convoy was a contingency the Germans had not adequately prepared for, and in the spring of 1942, due to the pressing requirements in other theaters, only 12 German submarines operated against convoys in Norwegian waters.⁴⁶ The air assets, however, were more substantial -- 60 twin-engine bombers, 30 dive bombers, 30 single engine fighters, and 15 torpedo bombers. In mid-March, Hitler ordered these planes to begin extensive anti-convoy operations. (See Map 5.) In April, PQ13 and 14 sailed. PQ14 encountered pack ice and most of its ships turned back. PQ13 was attacked, and lost five of its 19 ships plus a cruiser escort. To exploit the longer periods of daylight, favouring air attack, the Luftwaffe in Norway was reinforced with over 100 bombers. In May, torpedo bombers attacked PQ15 and sunk three ships. PQ16 was attacked late in May and lost nine ships. In June, PQ17 sailed, and a combination of clear weather and good intelligence



MAP 4

FROM LIDDELL-HART'S HISTORY OF
THE 2D WORLD WAR, PP. 372-3



MAP 5: OPERATING RANGES OF
GERMAN AIRCRAFT FROM
NORWEGIAN AIRFIELDS

AIRCRAFT	RANGE(NM)
JU 88	615
HE 111	270

22 Compiled from T K Derry, The Campaign in Norway, p 144, and Ziemke, The German Northern Theater of Operations, pp 235-241

provided ideal conditions for attack. The Germans attacked with a total of 264 combat aircraft of all types, and claimed to have sunk every ship of the convoy; British figures concede a loss of 23 out of 34 ships.

The PQ17 disaster was the zenith of German anti-convoy activity in Norway, causing the British to suspend convoys for three months. The Germans attacked PQ18 in mid September, and sunk 13 of 40 ships, although the cost to the German air force was heavy -- 20 bombers lost. After PQ18, Arctic convoys were again suspended due to the requirements of the North African invasion. Similarly, all German torpedo bombers and most of the twin-engine bombers in Norway were redeployed to the Mediterranean. The German Air Force in Norway would never again be able to muster such devastating strength in the Arctic. The next convoys, sailing in December, were attacked by remaining submarine and air forces, but the attacks less successful. The German failure to exploit the potential of its Norwegian bases resulted in its inability to interdict allied supply convoys on the Arctic run.

In his analysis of the World War II campaigns of the German Navy, VADM Friedrich Ruge assesses the impact of interdiction of the Arctic convoys. After the destruction of PQ17 in June 1942 and until the resumption of full-out convoy operations in December 1942, only one convoy (PQ18) attempted to make the Arctic run, and a significant number of allied warships had to be dedicated to convoy security, including a British aircraft carrier and two U.S. battleships, despite the critical situation of the U.S. Navy in the Pacific.⁴⁷ Convoys were considered so dangerous during that period that only single allied ships were dispatched to Murmansk,⁴⁸ and even with these precautions 21 percent of all cargoes were lost.⁴⁹ In contrast, when convoys were resumed under the cover of

darkness in December 1942, after Hitler's decision to suspend large scale convoy interdiction operations, the Soviets received enough equipment from the allies to equip 60 divisions.⁵⁰ Though significant in themselves, VADM Ruge's figures only hint at a greater political impact.

At the end of his life, in the bunker in Berlin, Hitler fantasized about breaking up the alliance against him, which would be the salvation of the German nation.⁵¹ It is doubtful that he realized it, but the closest he ever came to destroying the alliance came as a result of convoy interdiction operations based in Norway. In the Fall of 1942 German forces were besieging Leningrad and Moscow, driving on Stalingrad, and had crossed the Terek River into the trans-Caucasian region where they threatened Soviet oil fields. This was the time when Stalin needed Anglo-American aid the most, and the allies were not able to provide it. As one study of the PQ17 disaster noted, "The German operation "Knight's Move" (code name for naval and air action against PQ17) had touched the lines of Anglo-Soviet communication at their tenderest point, and at just the right moment to create maximum discord between Germany's allied enemies."⁵² In the words of one Soviet military historian, "many prominent US and British state and military spokesmen did not conceal their desires to see the Soviet state and the Soviet army substantially weakened by the end of the war" and to that end neither Britain nor the USA were true "to their obligations as regards the delivery of war supplies to the Soviet Union during the critical periods of 1941 and 1942. In the mid summer 1942, when the Germans launched an all out offensive towards the Volga and the Caucasus, the US and Britain practically ceased their shipments to the USSR by the Northern route pleading excessive losses at sea."⁵³ A more

politically astute German leader could have exploited this discord to divide the allies, which could have altered significantly the course of World War II.

From Norway's World War II experience, a number of lessons suggest themselves:

- First, the boldness of the German conquest, in the face of the superior Royal Navy, suggests that we today should prepare for the possibility that the Soviets will try to seize the whole country, and not just its northern regions. The risks involved are minimal compared to the advantages that could be gained. Furthermore, a Soviet attack south would be the inverse of a German attack north -- the Germans were extending themselves into regions ever more desolate; the Soviets would be moving into regions ever more able to sustain war.
- Second, Norway's political stability and its unoffensive foreign and security policies do not constitute a deterrent. The attempt to demonstrate peaceloving through weakness caused the failure in 1940, and not Quisling's traitors.
- Third, for an aggressor concerned with interdiction of sea lines of communication, Norway offers tremendous potential. An aggressor who focuses his efforts and doesn't waste his resources on secondary objectives may be able to replicate the PQ17 debacle all over the North Atlantic. Furthermore, NATO's defense of the Central Region would deny the Soviets the use of submarine bases elsewhere on Europe's coast, leaving Norway as its only option.
- Finally, intervention to reinforce Norwegian forces must be timely, must have the flexibility to respond to attacks initiated any

where in the country, and must be an integrated part of a coordinated and rehearsed Allied plan. The troops involved must be extensively trained for Norway's climatic demands, transport must be earmarked and available, and the decision making and chain of command relationships must leave no room for ambiguity.

SECTION III

NORWAY AS NATO'S NORTH FLANK - LOYALTY AND UNCERTAINTY

NORWAY JOINS NATO

Like the other countries ravaged by the war, Norway's first priority in the immediate post-war period was recovery, and it was included in the U.S. government's Marshall Plan of 1947. Before long, however, Norway was forced to contemplate another serious threat to its security. In 1948, the Soviet Union compelled Finland to enter into a treaty of "Friendship, Cooperation and Mutual Assistance" (FCMA), which contained specific provisions that could be used as a pretext for Soviet military action in the Nordic region.⁵⁴ This caused the Norwegians, who unlike the Swedes had had no history of hostility toward Russia, to perceive a Soviet threat to their security.⁵⁵ The 1940 experience had taught the Norwegians that foreign power "guarantees" were inadequate, and so the government began to consider the need to enter into an alliance.⁵⁶

But to whom should Norway be allied? In July 1945, Swedish Prime Minister Per-Alban Hansson put forward a Nordic defense concept. Sweden believed, with some justification, that its strong defensive posture had deterred both Hitler or Stalin from viewing it as an easy target, and also that Norway's relation with Britain had brought on Hitler's attack to preempt the British. In the post-war period, the Swedes argued, Nordic security would be best protected if the Swedish style defense establishment were expanded to encompass the entire region with the great powers excluded.⁵⁷

In the early post-war period, Sweden's defense planners saw no way to avoid being involved if Norway were attacked. A planning memorandum

written in Stockholm in October 1950 said, "In the event of Russian aggression against Denmark or Norway, bypassing Sweden, Swedish authorities are likely to be faced with a very difficult decision. Sweden must, in her own interests, with all her might, prevent the occupation of Norway by the Russians, for if that should happen, we would be surrounded and the position of our combat forces severely impaired....Swedish security is so bound up with that of Norway what we must be prepared to take part in the battle for Norway so as to prevent a collapse. Intervention may take the form of air and sea interdiction of invasion operations, of air attack against air bases or units in Norway, and of ground operations across the border toward Oslo and Trondelag."⁵⁸

In 1949, Sweden offered both Norway and Denmark a 10 year military alliance, pledging cooperation in military planning and assistance if either were attacked in exchange for their agreement not to enter into an alliance with any other country, thereby establishing a non-aligned Nordic defense pact.⁵⁹ The Swedish arguments had a certain regional appeal, but the Norwegians were not eager to break with their wartime allies and Marshall plan benefactors. In addition, the Norwegian government was strongly influenced by Britain, who wanted strong ties with Denmark and Norway and a policy in Sweden as westward-leaning as possible.⁶⁰ Consequently, Norway's response to Sweden's proposal was that the Nordic alliance should be an intermediate security measure, accompanied by great power guarantees for the Nordic countries.⁶¹

Any chance of resolving these differences evaporated because of Sweden's inability to resource the alliance it was proposing. Sweden insisted that Norway and Denmark bring their military preparedness up to a

level commensurate with its own, and the only place those countries could look to for military aid was the United States. At this time, however, the Americans insisted that they would provide military aid only to those countries who had entered the new North Atlantic Alliance.⁶² As a result, Norway became one of NATO's charter members.

Norway's entry into NATO brought sharp and immediate criticism from the Soviet Union. The Soviets had not favored the concept of Nordic alliance, but they were even more vehemently opposed to Nordic participation in NATO. The Soviets claimed that NATO was not really a collective security alliance, but rather an American scheme to procure forward bases from which to attack the Soviet Union, bases which would threaten Nordic peace because their appearance would force the Soviet military to react. Implicit in the Soviet charge was a threat against Finland or Norway, and so the Norwegian government promised the Soviet Union that they would allow no foreign troops or nuclear weapons to be based on Norwegian soil.⁶³ This policy endures to this day, and is matched by a similar policy in Denmark.

The no-basing policy is the cornerstone for the relationship existing on the Scandinavian peninsula known as the "Nordic Balance." In theory, the Soviet threat is balanced by the NATO alliance, and Finland's Soviet manipulated neutrality is balanced by Sweden's western-oriented neutrality. These relationships are maintained in a state of low diplomatic tension because none of the Scandinavian countries pursues activities which threaten the Soviet Union.⁶⁴ In reality, the concept of Nordic balance has no credence. The Russo-Finnish war of 1939-1940 had led many Scandinavians to wonder whether the Soviet Union respected traditional neutrality,⁶⁵ and, as if to remove any doubt, the Soviets

themselves repudiated the concept of the Nordic Balance in the 1950s.⁶⁶ In practice, the only Nordic balance for Norway was the balancing act it was forced to perform because of NATO treaty obligations and Soviet threats.

Certain disputes between the Soviet Union and Norway probably would have occurred without NATO, but Norway's NATO membership increased their tension. For example, joint Norwegian and Soviet development in the demilitarized Svalbard Archipelago, in accordance with a 1920 treaty, has led to disputes over airfield rights and activities.⁶⁷ Similarly, the limits of the off-shore frontier in the Barents Sea are still in dispute.⁶⁸ Norway has also been subjected to intrusions of her territory by submarines, boats, airplanes and unarmed cruise missiles,⁶⁹ but Sweden's experience indicates that nonalignment is no protection against incidents of that sort. Much more significant are the threats having directly to do with Norway's membership in NATO.

In 1957, Soviet Premier Bulganin sent a note to the Norwegian government, underscoring the Soviet opposition to NATO bases in Norway. Such bases, the note said, would be "legitimate targets for Soviet hydrogen bombs. The Norwegian people would pay dearly for bases built in Norway based on the plans of NATO strategists."⁷⁰ Later, in 1960, the Soviets accused Norway of complicity in the U-2 incident, charging that the reconnaissance plane was heading for a Norwegian airfield when it was shot down. The Russians contended that the U-2 incident proved that as a NATO member Norway no longer controlled its own airfields. Later that year, an incident with another reconnaissance flight, this time an RB-47, evoked the same accusations.⁷¹ The 1968 invasion of Czechoslovakia and

the invasion of Afghanistan were each accompanied by a threat which will be described later. A particularly tense period was the year 1978, when coastal intrusions were so common that one Norwegian radio news broadcast began its evening report: "No border violations have been taking place in the last 24 hours."⁷²

Norway's response to these provocations was characterized by restraint and conviction. Norway resisted any temptation to heighten tensions, but neither did it back down. For example, Norway refused to accede to a 1956 Soviet proposal to create a Nordic nuclear free zone when the Norwegian prime minister learned that Soviet territory would be excluded.⁷³ Commendably from NATO's perspective, the period 1952-1955 resulted in military expenditures three times greater than the pre-NATO level.⁷⁴

Still, however, it must be said that as annoying and insulting as these Soviet provocations were, they were not until the late 1960s regarded as a military threat, because they were not backed up by a credible military capability. At that time the most significant manifestation of Soviet military power was the mechanized army deployed in East Germany and the most significant naval threat was the Baltic Fleet, essentially an adjunct to the land forces. The Northern Fleet, in waters adjacent to Norway, consisted of submarines and a small number of surface combatants for coastal defense.⁷⁵ The military threat to Norway judged to be most serious would come from the south, a Warsaw Pact attack through northern Germany and Denmark, supported by naval and amphibious operations in the Baltic, depending heavily on the participation of the East German and Polish military.⁷⁶

The plan for Norway's defense in those years was nicely summarized in

1962 by the then Commander-in-Chief of NATO's Northern European Command, Sir Harold Pyman, "To protect Norway you need to secure control of south Norway. To secure south Norway you need a firm hold on the exits from the Baltic. To control the exits from the Baltic you must have the Danish Islands and Jutland in your hands. And the key to Jutland is Schleswig Holstein."⁷⁷ Beginning in the late 1960s, however, Western intelligence began to detect the extensive build-up of military facilities on the Kola Peninsula, which gave rise to the threat of direct Soviet attack into Norway, without involving Poland, Germany, or Denmark.⁷⁸ This is the challenge Norway and NATO must face today.

THE MILITARY SITUATION ON THE NORTH FLANK

At this point it is necessary to outline the current military situation on the North Flank, beginning with a survey of the military capabilities of each country followed with a description of NATO's posture. (See chart 1.)

Norway:

Within NATO, Norway is regarded as the ideal ally. In the words of a former chief of NATO's Military Committee, Admiral of the Fleet Sir Peter Hill-Norton, Norway "stands alone among NATO allies," with "more petro kroner than she can conveniently deal with and, to her credit, this has already reflected in her robust support for the alliance."⁷⁹ The significance of Norway's contribution may not be immediately evident to the casual observer, for its 35,800 man active military structure and \$1.8 billion defense budget (1988 figures) are small compared with those of a

CHART 1

Nordic Balance

	Active <u>Ground Troops</u>	<u>MBT</u>	<u>FGA</u>	Surface Warships <u>(Major/Minor)*</u>	<u>Subs</u>
Norway	19,000	117	126	5/38	12
Sweden	44,500	785	355	0/45	11
Finland	27,800	180	83	0/21	0

Soviet NWTVD					
LGMD	about 150,000	1,200	515	70/40	287

Also 65 Naval Bombers
145 ASW Aircraft
82 SSM
40 Armed Helicopters

Soviet Reinforcement

7 Airborne Divisions
10 Air Assault BDEs

NATO Reinforcement

AMF Land
UK/NL Marine BDE
USMC MEB
CAST BDE (until Nov. 1989)
NATO COMP FORCE

*Major Surface Warships-Frigate and Larger
Minor Surface Warships-Corvette and Smaller

Compiled from data in the Military Balance 1989-90

country like the Federal Republic of Germany (488,700 active military and \$20.9 billion defense budget).⁸⁰ A different picture emerges, however, once the figures are normalized to account for the vast differences in population. (See Chart 2.) Norwegians have 30 percent more land area to defend with only 7 percent of the FRG's population. Their defense expenditures are a greater fraction of their GDP and require a 24 percent larger financial sacrifice on the part of each citizen. A greater percentage of Norwegians serve in the active military than West Germans (.85% vs .81%) or are obligated to military service in either active or reserve status (5.6% vs 2.2%). These data underscore the findings of a Rand Corporation study done in 1980, which concluded that Norway was doing all that the alliance could reasonably expect to contribute to its own security.⁸¹

Norway retains conscription, with young men obligated to an average of 12-15 months active service followed by a reserve obligation from the ages of 19-44 years.⁸² Because of its World War II experience, when some reservists received their mobilization orders through the ordinary mail, all currently serving officers and NCOs of Norway's reserve forces are sworn to regard any attack on the country as the authority to mobilize, even if the king and government has fallen into enemy hands and irrespective of any subsequent threats or orders to the contrary. Similarly, the standing forces are ordered to fight on their own initiative if attacked. Plans call for full mobilization in 72 hours, although deployment to the battle area could take considerably longer if there were a determined effort to impede it. Much of the army's heavy equipment is prepositioned in key areas to reduce the time required for deployment.⁸³

CHART 2

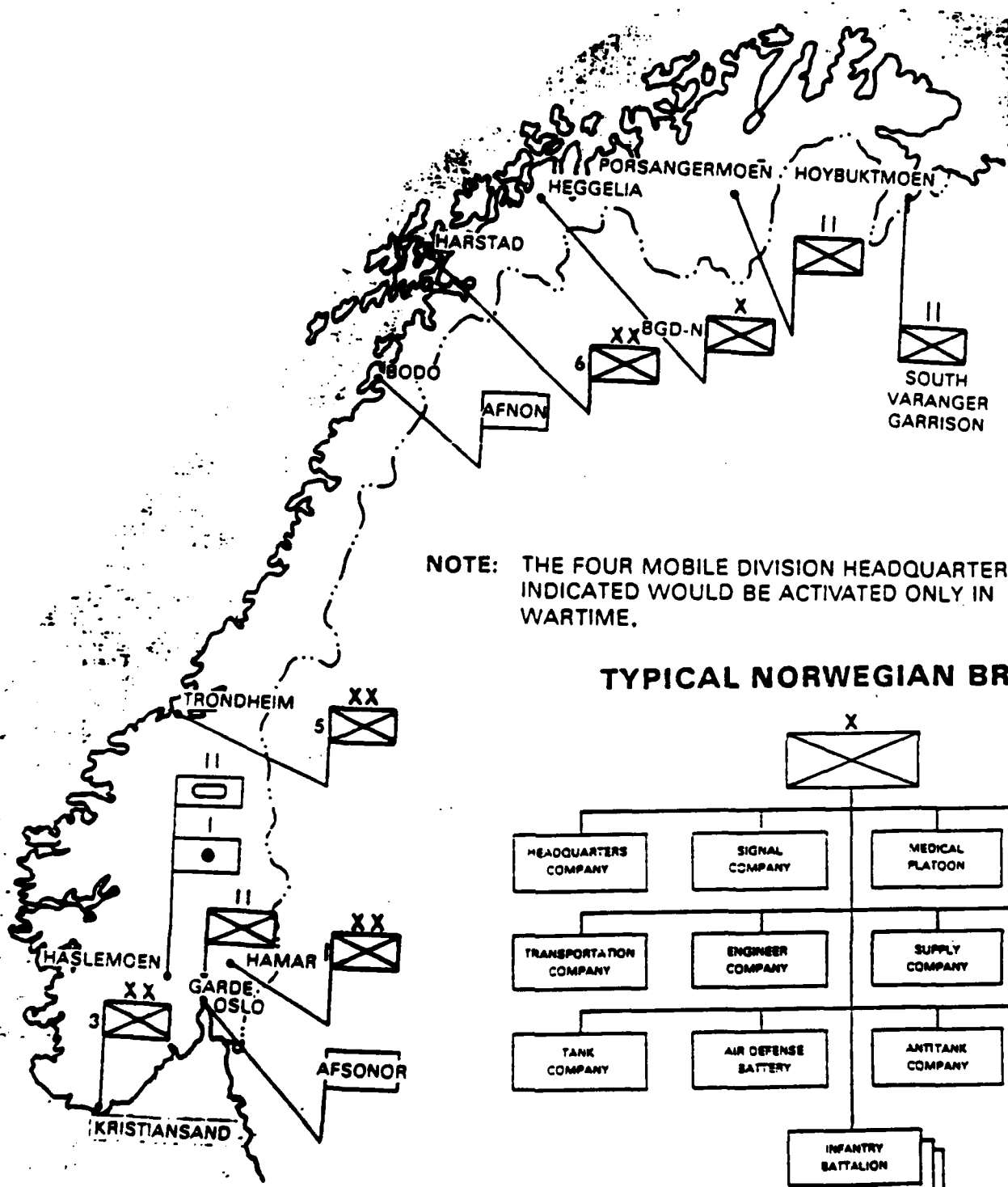
The Defense Burden: A Comparison of Norway and the FRG

	Norway	FRG
Size	125,064 sq mi	95,904 sq mi
GDP	\$ 90.4 bn	\$1,205.7 bn
Def. Exp.	\$ 1.78 bn	\$ 20.9 bn
Population	4,210,900	61,214,000
Males 18-32	500,000	7,654,000
Active Military	35,800	488,700
Total Military (Active and Reserve)	235,800	1,338,700
Def Exp as % of GDP	3.3	3.0
Trend since 1985, % GDP	+ .2	- .2
Def Exp. per capita	\$ 426	\$ 343
% Population in active military	.85	.81
% Population w/active or reserve obligation	5.6	2.2

Based on figures in the Military Balance 1989-90, p. 208. Costs and exchange rates in constant 1985 US dollars.

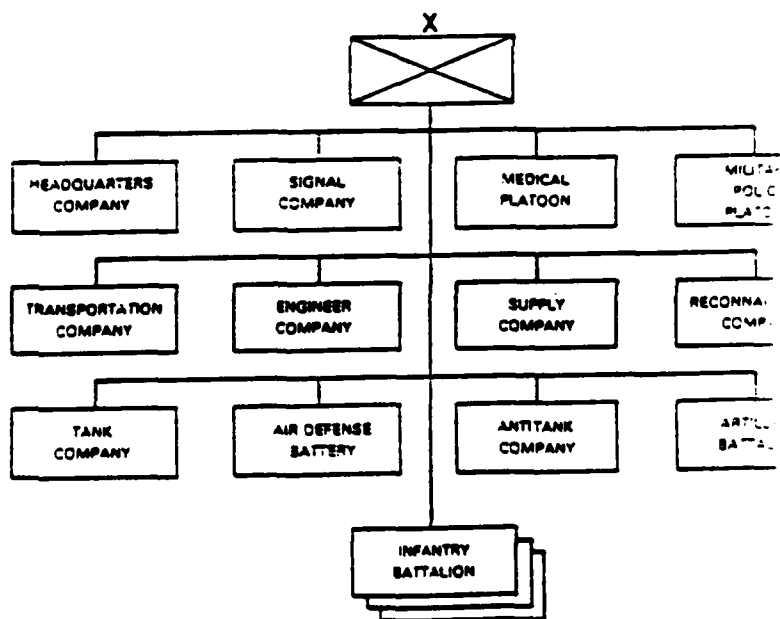
Over 90 percent of the standing army's combat strength is stationed in North Norway. The Brigade North (a 5000 man formation consisting of three infantry battalions, an artillery battalion, and a tank company) is the largest and most combat capable of these units. (See map 6.) It is stationed at Heggelia Rusta, near Bardufoss airfield. Further to the east is an infantry battalion manning the garrison at Porsangermoen, and another infantry battalion near Kirkenes, which provides the troops who patrol the border with the Soviet Union. The army's peacetime deployment also includes combat units stationed in or near Oslo: the Royal Foot Guards Battalion (700 men), a tank squadron, an artillery battery, and a rapid deployment company. These units are kept in a high state of readiness and are supposed to be deployable any where in the country in 24-48 hours.⁸⁴ The remainder of Norway's active army is devoted to the training, mobilization, and deployment of the reserves. Upon mobilization, Norway's Army would expand by three mechanized brigades, 10 infantry brigades, and some 35 independent territorial infantry and artillery battalions. Major items of equipment include 155 mm SP howitzers, TOW ATGMs, Bofors-70 air defense weapons, and Leopard tanks.⁸⁵

Norway's heavy reliance on mobilization dictates the deployment of its units. The Brigade North and its supporting units have the mission of defending against an attack in the north long enough to permit the rest of the Army to mobilize.⁸⁶ The mobilization units are located primarily in the south, where most of the population lives.⁸⁷ Exacerbating the problem is the vulnerability of the country's lines of communication. Only one route leads from the south to the northern regions, and at many locations this road crosses rivers and fjords at places very vulnerable to enemy interdiction.⁸⁸ In case of war, Norway's survival would depend upon its



NOTE: THE FOUR MOBILE DIVISION HEADQUARTERS INDICATED WOULD BE ACTIVATED ONLY IN WARTIME.

TYPICAL NORWEGIAN BRIGADE



WARTIME STRENGTH:	5000	MAJOR EQUIPMENT
INFANTRY BATTALION:	800	17 LEOPARD I OR M-48 TANK
ARTILLERY BATTALION:	600	18 M-113 155mm SP HOWITZ
		105/155mm TOWED HOWITZ
		20 107mm MORTAR
		18 CARL GUSTAV 84/106mm
		4 RBS-70 SAM
		200 BV-202 (TRACKED SNOW VEHICLE)

MAP 6: NORWEGIAN ARMY DEPLOYMENT

ability to fend off an initial attack and defeat high technology enemy attempts to disrupt its communications and to impede mobilization.⁸⁹

In time of war, the Norwegian army falls under the command of four divisions. The sixth division's combat mission is to command the Brigade North and any NATO ground reinforcements that arrive in its area. The other divisions would exercise command over the reserve brigades, supervising their mobilization, deployment of the battle area, and the conduct of the battle. These divisions fall under two NATO commands, which will be discussed later.

Norway's Air Force consists of five fighter squadrons (4 F-16, 1 F-5) to support ground operations. About half of these are in the south, meaning that deployment and support in case of an attack in the north is a concern for the Air Force as well as the Army. In addition, Norway maintains two transport squadrons (1 C-130, 1 DHC-6 and UH-1B),⁹⁰ various maritime patrol and air rescue elements, and four Nike-Hercules air defence batteries (1 active, 3 reserve) around Oslo. These air defense assets are provided early warning and direction by the NATO Early Warning Command, which has a forward operating location (FOL) at Orland airfield, and NATO's Air Defense Ground Environment System (NADGE), into which Norway's assets are integrated.⁹¹

The Navy consists of 5 frigates, 2 corvettes, 2 mine-layers, 14 coastal patrol submarines, 5 LCTs, and approximately 40 fast attack and coastal patrol boats. In addition, Norway has 26 coastal fortresses with 50 coast artillery batteries, with guns up to 150 mm in caliber, most of World War II vintage. Some coastal fortresses have a cable mine-laying and torpedo capability. All coastal defenses are integrated with a shore-based radar and command and control system, and are further secured by

Bofors air defense missiles and guns.⁹²

Finland

Norway shares land borders with two countries besides the Soviet Union: Finland, and Sweden, both neutrals. Finland's foreign policy is characterized by a western cultural orientation combined with friendship with the Soviet Union, which means that non-provocation of the Soviets receives even more emphasis in Finland than in Norway. Finland is still tied to the Soviet Union through the Finno-Soviet Treaty of 1948, which is due for extension into the next century.⁹³ The provisions of this treaty include pledges of mutual assistance in case of an attack on Finland or on the Soviet Union through Finnish territory. Article 2 of the treaty, which calls for consultations in case of a threat of such an attack, was invoked by the Soviet Union during the Berlin crisis of 1961. The result was a pledge extracted from Finland to mind Soviet interests in Scandinavia. Other examples of Finnish acquiescence were their signing a 15 year trade agreement with the Soviet Union, to balance their 1973 Free Trade Agreement with the EEC, and their abstention from voting on the 1980 UN resolution condemning the invasion of Afghanistan.⁹⁴

On the western side, Finland is a member of the Nordic Council and enjoys close relations with the rest of Scandinavia, especially Sweden. It has been a member of the EFTA since 1961 and, as mentioned, has signed a Free Trade Agreement with the EEC.⁹⁵

Finland's geography is flatter than Norway's, and includes many expanses of bogs, lakes, and forests which impede mechanized maneuver. The only mountains are in the north, in the so-called "Finnish Wedge"

along the Finnish-Swedish-Norwegian border. The climate is not appreciably different from that of Norway.⁹⁶

Perhaps the key feature of Finland's geography from this study's perspective is the 1200 km (750 mile) border with the Soviet Union. Any Soviet attempt to seize territory in Norway would be greatly facilitated if Finnish territory could be used.⁹⁷ Finland's security policies reflect an attempt to balance resistance to Soviet aggression with a need not to appear hostile to the Soviet Union. Finnish standing forces are extremely small (31,000 men), virtually all (27,800) of which are ground forces equipped with very few (less than 200) tanks. Under full mobilization that force could expand to about 500,000 troops, supported by a small navy (21 combatants, mostly patrol boats) and air force (about 75 combat aircraft).⁹⁸ Finland's strategy is to deter aggression not with the threat of defeat at the border but rather with the threat of long term attrition, using hit-and-run tactics in the forests and bogs, on enemy lines of communication.⁹⁹ Still, in a short war scenario, an attack through Finland, justified under the pretext of compliance with the Finno-Soviet treaty obligations, could be a very attractive Soviet option which the Finns probably could not prevent.

Sweden

Norway's other neighbour, Sweden, is also neutral, but Sweden's neutrality is much more credible than Finland's. Although Sweden is often critical of U.S. policy, and was especially critical of the Vietnam war, Soviet attempts to intimidate the Swedes have been largely ineffective, and have often been counter productive. The discovery of Soviet submarines in Swedish waters spurred an increase in defense spending.¹⁰⁰

With geography, climate, and population similar to her neighbours, Sweden's defense establishment is organized along similar lines, with a small (64,500 men) active force capable of rapid expansion when mobilized. Unlike Norway or Finland, however, Sweden maintains one of Europe's largest and best equipped air forces, approximately 420 combat aircraft of the most modern types.¹⁰¹ Sweden's defense has always depended heavily on a strong air force and (when mobilized) a strong armored force. At the end of World War II, Sweden's air force was the second largest in Europe,¹⁰² and if it were today a member of NATO, its air force would be larger than all its European allies except Britain, France, and West Germany.¹⁰³ Sweden's strength and strict neutrality are intended to insure that no nation will calculate that a direct attack on Sweden is worth the possible cost or be tempted to launch a pre-emptive attack to keep Swedish territory out of enemy hands.

Other security goals of Swedish policy are to keep great power influence out of Scandinavia and to ensure that no diplomatic rift develops between the Scandinavian countries which an outside power could exploit. Although unsuccessful in the bid for a non-aligned Nordic military pact, Sweden still pursues these goals through economic integration in the European Free Trade Association and through cultural, social, and some degree of political integration in the Nordic Council.¹⁰⁴ Norway and Finland belong to both organizations.

Norwegians have always regarded Sweden's defense capabilities and policies with great respect. Typical of this attitude was the assessment of Sven Stray, the then Norwegian Foreign Minister, who in 1985 said:

Sweden is capable, by her own efforts, to make the likely costs of an attack upon her exceed the likely gains. Hence, there is a high probability that deterrence will work. Since both East and West have reason to assume that the main adversary will not seek or will be denied access to Swedish territory, they will lack the incentive for pre-emption. Neutrality is in the interests not just of Sweden, but it strengthens peace and stability in Europe by reducing the area of direct confrontation between NATO and the Warsaw Pact without creating a destabilizing vacuum.¹⁰⁵

THE SOVIET THREAT TO THE NORTH FLANK

For at least 85 years, military and naval analysts have considered the security implications of strong Russian land and naval force in the far north. An internal document circulated in the British Committee for Imperial Defense in 1905 warned that "a Russian incursion into Finnmark would be followed by a Muscovite domination of the entire Scandinavian peninsula, and the balance of European power would be shaken to its foundation."¹⁰⁶

Beginning in the late 1960s, the Soviet Navy began building the capability of realizing that threat. In the words of the man chiefly responsible for transforming the Soviet Navy into a global maritime force, Admiral of the Fleet S. G. Gorshkov, "Today we have a fully modern navy, equipped with everything necessary for the successful performance of all missions on the expanses of the world ocean. Naval forces can be used - in peacetime - to put pressure on enemies, as a type of military demonstration, as a threat to interrupting sea communications, and as a hindrance to ocean commerce. The flag of the Soviet Union now flies over the oceans of the world. Soviet sea power, merely a minor defensive arm in 1953, has become the optimum means to defeat the imperialist enemy, and the most important element in the Soviet arsenal to prepare the way for the communist world."¹⁰⁷

The major threat to Norway is the Soviet force stationed on the Kola Peninsula, including the forces in the Leningrad District and the Northern Fleet. Facilities to support these forces have transformed the Kola into one of the world's most powerful and congested military bases. (See Chart 3).

The reason for the military development in this area is geographic. Located on the Barents Sea and warmed by the Gulf Stream, the Kola provides a number of ice-free inlets suitable for naval installations. (Map 7.) Furthermore, these bases are located as close as Soviet geography will allow to the Norwegian Sea, affording passage into operating areas in the North Atlantic.¹⁰⁸ For a Navy constrained elsewhere by narrow straits controlled by hostile powers, this passage is of extreme strategic importance. As a result, over 150 submarines (39 strategic SSBNs and 116 tactical attack submarines), or about 40 percent of the total submarine fleet, operate out of the Kola. In addition, over 70 surface combatants are assigned to the Northern Fleet, including two CVVs (Kiev class with 13 Yak-38 V/STOL aircraft), 13 cruisers, 13 destroyers, and 42 frigates.¹⁰⁹ The new Soviet Tbilisi-class carrier, scheduled for sea trials within a year of this writing, will also likely be assigned to the Northern Fleet.¹¹⁰ Two additional carriers of this class are under construction. Significantly, 15 amphibious craft and four battalions (3,000 men) of Naval Infantry are also stationed in the Kola. Naval aviation includes 65 Badger and Backfire bombers and over 140 ASW aircraft (65 afloat, 80 land based).¹¹¹

Air defense for the Kola Peninsula is provided by 350 interceptors of all types (MiG-23, 25, 31; SU-15, 27) and 100 SAM complexes (SA-2, 3, 5, 10). These weapons are tied into early warning radar sites deployed

CHART 3

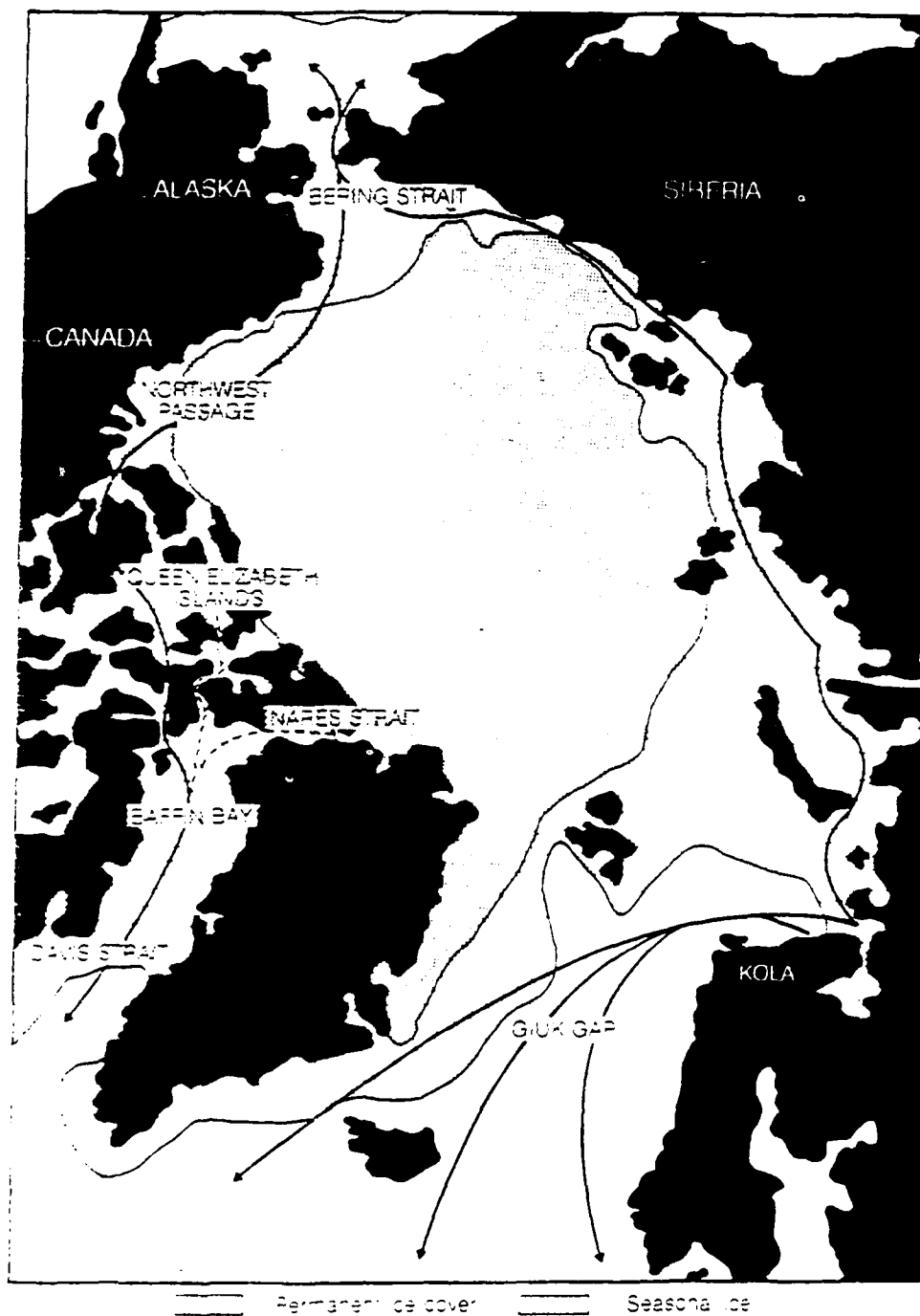
Growth of the Soviet Northern Fleet. Selected Surface Ships

	<u>Battleships</u>	<u>Aircraft Carriers</u>	<u>Battle Carriers</u>	<u>Cruisers</u>	<u>Destroyers</u>	<u>Frigates</u>	<u>Total</u>
1936					3		3
1941					8		8
1945	1			1	17		19
1953				3	27		30
1956				5	28		33
1962				2	26		28
1967				2	18		20
1973				9	20	1	30
1980		1		11	18	8	38
1986		2	1	10	19	9	41

1990 Baltic/Northern Fleet Comparison

	<u>Aircraft Carriers</u>	<u>Cruisers (all Classes)</u>	<u>Destroyers</u>	<u>Frigates</u>	<u>Attack Subs</u>	<u>BM Subs</u>	<u>Naval Bombers</u>
Northern	2	13	13	42	116	39	65
Baltic		3	13	31	43	4	100

Source: A.F. Nichols, "The Fifty Year Development of the Soviet Northern Fleet," Armed Forces, RUSI Pub. Vol. 5, No. 4, April 1986, pp. 182-185; and The Military Balance 1989-90, pp. 38-40.



MAP 7: ARCTIC OCEAN ICE COVER AND EXITS

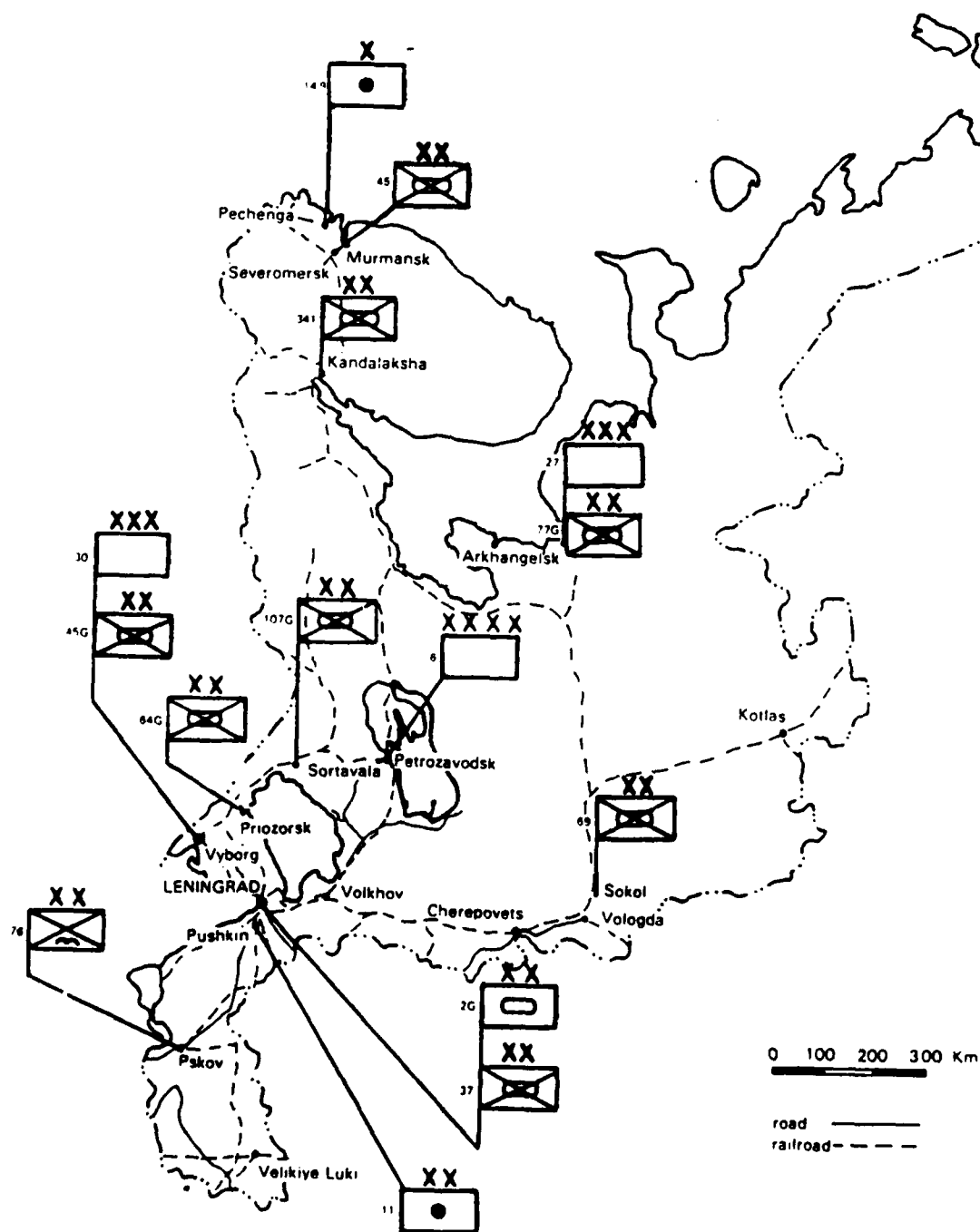
From Lindsey, Strategic Stability in the Arctic (Adelphi Papers #241)
p 4

throughout the peninsula, complemented with the Il-76 Mainstay, an AWACS type aircraft.¹¹² Kola air defenses are high priority units for receiving the latest equipment, and were the first to receive the MiG-31.¹¹³

The main task of the air defense forces on the Kola is to counter the nuclear threat posed by U.S. aircraft and cruise missiles. Critical to this mission is the ability to intercept U.S. long range bombers over the Arctic Sea prior to their release of ALCMs. In addition, high priority is placed on the interception of carrier based aircraft and of SLCMs launched from the Norwegian Sea. Finally, Kola based air defense forces are also targeted against NATO ASW aircraft operating in the Arctic and Norwegian Seas in support of the Northern Fleet's submarine forces.¹¹⁴

Other air units stationed in the Kola include elements of the Leningrad Military District's Air Forces, some 160 attack and reconnaissance aircraft (MiG-21, -25, -27, Su-17) and 180 attack and utility helicopters (MI-24, -8, -17) tasked with the support of the Leningrad MD Ground Forces.¹¹⁵ Elements of the 36th and 46th Air Armies, long range bomber units (Bisons, Badgers, and Backfires), also have been known to conduct refueling exercises on the Kola.¹¹⁶

Ground Forces on the Kola come under the command of the Leningrad Military District, and include 11 motorized rifle, 1 airborne, and one artillery division, plus an air assault brigade.¹¹⁷ (See Map 8.) These forces could be reinforced prior to hostilities, especially with airborne divisions (the Soviets have 7) and air assault brigades (the Soviets have 10). Norwegian military estimates conclude that Kola-based units would require 14 days of preparation in order to posture themselves for an attack, and that this activity could be kept secret from Western reconnaissance for about six or seven days,¹¹⁸ so a Soviet attack on North Norway would be



MAP 8: SOVIET ARMY DEPLOYMENT, LENINGRAD MILITARY DISTRICT

From AFSC Pub 2C10, p V21

preceded by a seven or eight day period in which Norwegian forces could be mobilized and reinforced. If, however, Soviet intra-theater transport capabilities continue to improve large forces could be placed on the Kola in a shorter time, thus reducing the time required to prepare an attack to as little as six or seven days.

The main vulnerability of the forces on the Kola is their extreme density. All the military assets described above occupy an area just 1600 km (1000 miles) long and 800 km (540 miles) wide. The naval bases and airfields in particular are the most densely concentrated in the world. While they represent significant military assets, described as the Soviet Military's "crown jewels," they are also strategic liabilities in the sense that since they comprise such lucrative targets, any plan involving military action must provide for their safety.¹¹⁹

SOVIET ATTACK OPTIONS

The Scandinavian region is one which the Soviets view as generally non-threatening, and which they intend to keep that way. President Gorbachev has praised the Scandinavian countries for their "non offensive" defense policies, and continues to pursue initiatives to persuade them to "demilitarize" the Nordic region.¹²⁰ Scandinavian policies have succeeded in keeping Finland independent, and a legitimate argument could be made that a more assertive defensive stance, especially in areas bordering the USSR, might compel the Soviets to deploy even more powerful forces in or near those regions or, in the extreme, invoke the 1948 treaty as a pretext for annexing Finland.¹²¹

Nevertheless, however, the Scandinavian position is extremely vulnerable, and the region could be viewed by an aggressive Soviet

government as an attractive target. The success of an attack on Norway would be assured if strategic objectives were seized before mobilized Norwegian troops or foreign reinforcements could be brought to bear, and under the proper circumstances that could be an acceptable risk.¹²² Although a Soviet attack in southern Sweden could drive that country's forces into the enemy camp, it would also provide the capability to outflank NATO defenses in Finmark, and must be considered. No such penalty would be associated with an attack through Finland, which must consequently factor largely in NATO's defensive planning.

In the event of hostilities, the Norwegian Sea will be crucial to the operations of the Soviet Northern Fleet. The significance of this area derives from two strategic imperatives which shape Soviet naval strategy--the security of their strategic nuclear deterrent force, and their need to interdict NATO's transAtlantic SLOCs.

Among the main elements of the Kola Peninsula's military facilities are the ports of the Soviet ballistic missile submarine fleet. Very conscious of their inferiority to the US Navy in anti-submarine warfare, the Soviets have developed classes of submarines and SLBMs capable of striking targets in the United States without deploying very far from their home bases in the Kola. Constrained by the narrow passages between Greenland, Iceland, the UK, and Norway, the Soviet employment concept for modern SSBMs is not to risk losing them by attempting to steam south of this gap, but rather to keep the SSBMs closer to home and deploy the remainder of the Northern Fleet as a defensive screen, forcing NATO ASW forces to run a strongly fortified gauntlet to get to Soviet SLBMs.¹²³ Also protected under this strategy are airfields supporting strategic

bomber operations. Soviet interceptors and ASW aircraft operating from the Kola provide strategic air defense and defense against NATO's SSBN.¹²⁴ Protection of these elements on the Kola is the first imperative of Soviet northern strategy.

The other goal of the Northern Fleet is to cut NATO's SLOCs in the North Atlantic to prevent the reinforcement of Europe using naval aviation and attack submarines, which would have to cross through the Greenland-Iceland-United Kingdom (GIUK) gap in order to attack NATO convoys. To detect Soviet submarines in transit to the North Atlantic the United States has installed the so-called SOSUS line, a system of sensors stretched along the GIUK gap.¹²⁵ (See Map 9.) Although the SOSUS line would aid in submarine detection, it will not in itself sink enemy subs. Without tactical air superiority, NATO's ASW efforts in that region would be severely diminished. If the Soviet submarine fleet deploys prior to the outbreak of hostilities or under the cover of land or carrier-based aircraft, NATO's naval forces might find themselves unable to protect the convoys. This possibility has caused the U.S. Naval strategy of forward defense to come into question. As early as 1983 the US Chief of Naval Operations (CNO) announced that the Soviet threat to the Sea Lines of Communication (SLOCs) would compel him to concentrate his naval forces south of the GIUK gap, and precluded him from sending any carrier battle groups into the Norwegian Sea.¹²⁶ More recently, US Admiral Frank B. Kelso, current Supreme Allied Commander Atlantic, has said that "if we lose our air bases in Norway and Iceland, the results would be disastrous. Failure to hold these critical areas would allow the Warsaw Pact unrestricted access to the Atlantic and the Alliance's sea lines of resupply."¹²⁷

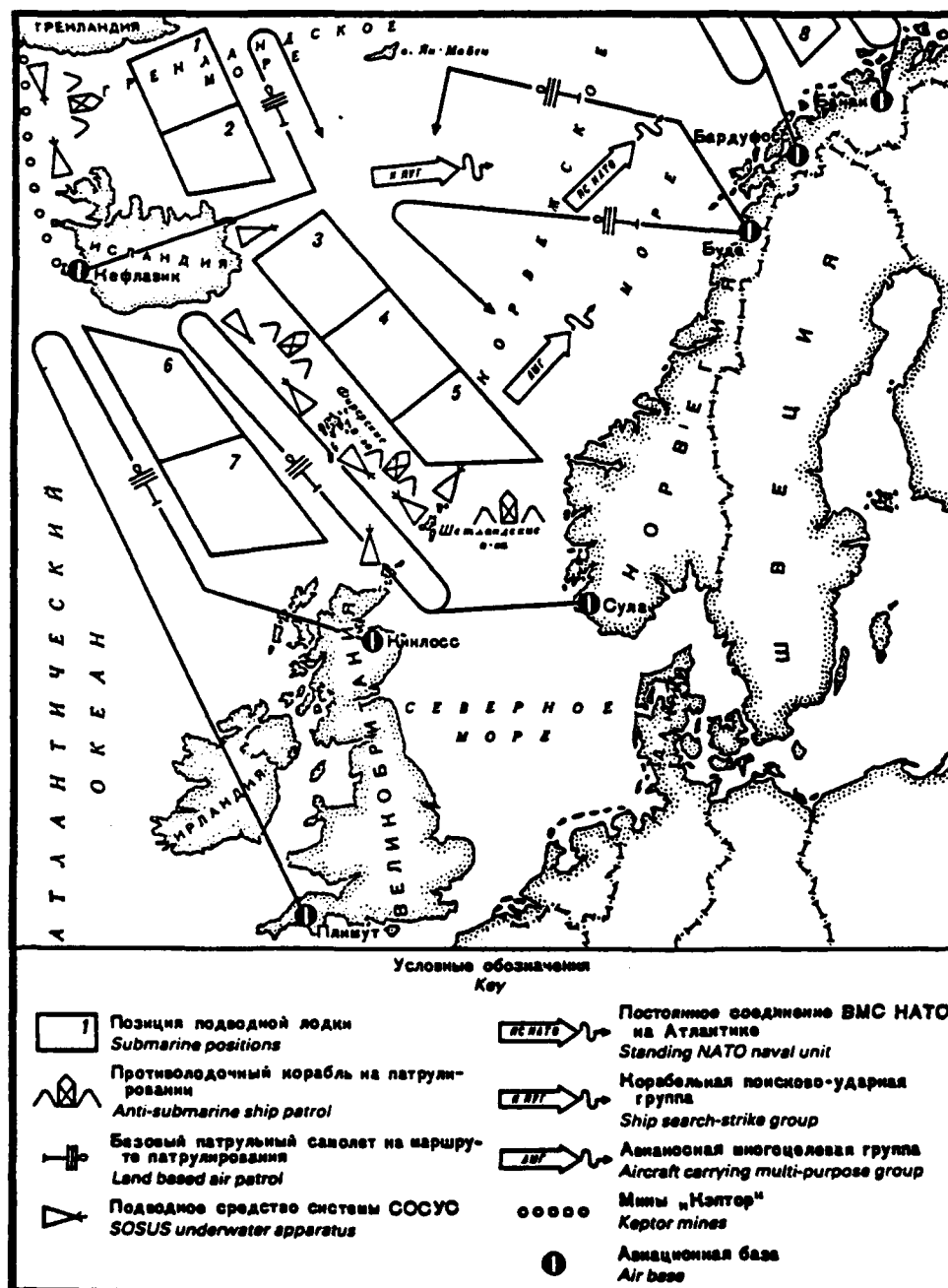


Рис. 2. Вариант построения противолодочных рубежей на Атлантике

MAP 9: A SOVIET VIEW OF NATO ASW DEFENSE IN THE NORTH ATLANTIC, FIRST PUBLISHED IN SOVIET FOREIGN MILITARY REVIEW, JAN 1984

The circumstances and objectives of a Soviet attack into Norway would be determined in a larger strategic context, but in general terms one of two scenarios is most likely: either an attack to seize North Norway, specifically the province of Finnmark, or an attack to seize the whole country.

A Soviet attack on North Norway would have as its goal the security of the "northern bastion," the military facilities in the Kola peninsula. The attack would probably involve both amphibious landings in North Norway and ground attack through the Finnish wedge, to outflank Norwegian forces deployed near the border, followed by airborne or heliborne assaults to seize key airfields and choke points along major routes. If successful, such an attack would provide coastal protection in the fjords for Soviet submarines and additional airfields for air defense and ground attack aircraft. This would extend operating ranges and enhance the survivability of forces in the Kola through dispersion and defense in depth. Further, such an attack would also enhance the strategic defense of the Soviet Union by extending the range of the interceptors and ASW forces tasked with the destruction of US ALCM armed bombers and SLCM-armed submarines.¹²⁸

Norway's response to such an attack would be to order the Brigade North to resist, while simultaneously ordering the reserves to mobilize. Their best realistic option would be a delay to a line established on the southern banks of the Lyngenfjord, which essentially would cede the province of Finnmark to the Soviets.¹²⁹

Such a scenario has become the one most commonly accepted by analysts of NATO's North flank. Its limited objectives make it one with an outcome imaginably acceptable for both the Norwegians and the Soviets; a defense

oriented on the Lyngenfjord would cede Finnmark but would secure the survival of the rest of Norway, an attack which captures Finnmark would enhance the Soviet ability to protect its own northern flank. Under these circumstances it is difficult to conceive that the Norwegians would agree to NATO counter measures which might escalate the conflict, especially to a nuclear level, making it difficult to justify US missile strikes against either the attacking Soviets or their bases on the Kola peninsula. Without such options, NATO might just have to accept the loss of Finnmark.¹³⁰

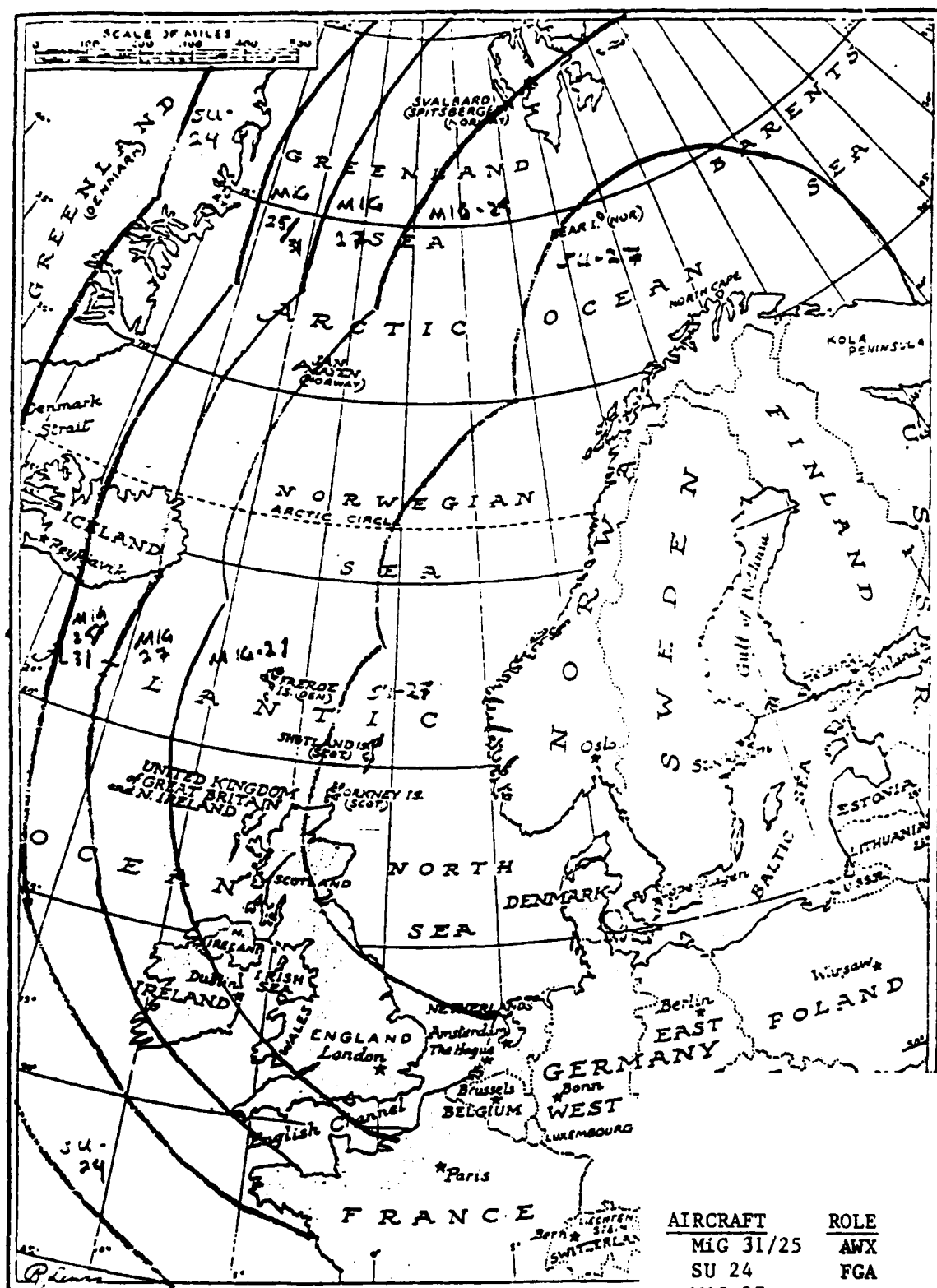
The Norwegians recognize their inability to defeat a Soviet attack at the border, and while they are committed to fighting for every square meter of Norway, they recognize that their most feasible course of action is to trade space in the sparsely populated province of Finnmark to gain time to mobilize a defense of the densely populated south. Former defense minister J. J. Holst expressed this view in 1982, when he wrote "Norway is in a different position from the Federal Republic. It can attempt to trade space for time."¹³¹

The second Soviet attack scenario is one with the objective of seizing the airfields in southern Norway. Until recently, such an attack was viewed as a follow-on to a Soviet/East German/Polish attack to seize Jutland and control the Danish Straits.¹³² Recent developments in East Germany and Poland make such a scenario unlikely, however, because the complicity of these two countries can no longer be assured. Today's most likely scenario for an attack on Southern Norway is a continuation of a north Norway attack, using the newly captured bases for support. Such an operation would strain the power-projection capability of the Soviet Union

to its limit,¹³³ but the appearance of the Tblisi-class carriers may provide them the edge needed.¹³⁴

The loss of North and South Norway would pose grave danger to NATO's transatlantic reinforcement capability. Soviet tactical aircraft operating out of south Norway would be able to neutralize NATO's ASW efforts along the SOSUS line all the way to Iceland, allowing Soviet attack submarines to escape into their operating areas. Soviet land and carrier-based air could cover Northern Fleet operations and enhance the protection provided to their own northern flank, enhancing their ASW operations against US SLCMs and their air defense against US ALCMs.¹³⁵ Finally, and perhaps most significantly, Soviet aircraft operating from South Norway could attack port facilities along the Belgian, Dutch, and French coasts without having to fly through the dense air defenses in Germany or Sweden. Such a capability would greatly increase the vulnerability of North American reinforcements. (See Map 10.)

US Naval analysts estimate that units deploying by sea to reinforce in Europe would follow the following timetable: 2-9 days to get to port, 5 days to load, 6 days at sea, 5 days to unload, 2 days to travel to an assembly area, and 3-5 days to organize for combat and deploy. Therefore, seizure of southern Norway would enhance the Soviet submarines' ability to attack troops loading in US ports, facilitate air and submarine attacks on convoys (similar to the PQ convoy experience), and attack reinforcements at their European ports.¹³⁶ The SACEUR, General John Galvin, has articulated a requirement for 1,000 shiploads of reinforcement and resupply in the first 30 days of a European war.¹³⁷ Like the Germans operating against the Arctic convoys in World War II, attacks against NATO's convoys and debarkation ports would strike at the lines of allied



<u>AIRCRAFT</u>	<u>ROLE</u>	<u>RANGE (NM)</u>
MiG 31/25	AWX	900
SU 24	FGA	1100
MiG 27	FGA	800
SU 27	FBA	375
MiG 21	FBA	683

communication at their tenderest point, and at just the most critical moment.

An effective Norwegian response to such an attack is difficult to imagine. The mobilized forces fighting in the north would be engaged and outflanked, thereby unable to respond to threats in the south. Reservists in the process of mobilizing or enroute to their assigned battle areas would be vulnerable targets. Norwegian air and coastal defenses could be destroyed by submerged missile firing submarines, leaving the country's ports vulnerable to attack.¹³⁸ Under those conditions, any NATO forces already in the country would be cut off. Further reinforcement would be rendered impossible because of the threats to the ports. A benevolent Soviet occupation strategy would encourage the Norwegians not to accede to NATO counter measures which might be escalatory, such as strikes against Soviet forces or Soviet territory. Norway, then, would find itself isolated from the rest of NATO, and Western Europe would find itself isolated from North America.

A Soviet strategist planning any military operation would have to choose between these two attack options based on his estimate of the US response. If the action contemplated is likely to involve a direct confrontation with the US military, a contingency for attack in North Norway must be planned for because the US/Soviet confrontation could escalate to a US strike on the Kola peninsula. If the anticipated US response is reinforcement or support of its forces in Europe, planning would have to include provision for the seizure of north and south Norway, for even in a short war, sealift would be crucial to NATO's success.

That Soviet strategists take these attack options seriously is indicated by continued construction of air bases, prestocking of supplies,

and the improvement of road and rail links along the Kola peninsula from Leningrad to the Norwegian border.¹³⁹ Likewise, the record of Soviet exercises and alert deployments leave little doubt that an attack on Norway figures to be one of the first major phases of any Soviet war plan. According to one analyst, Soviet military writers emphasize the German campaign in Norway and Denmark in 1940, and the pattern of German landings was "virtually duplicated during the SEVER exercise in 1968 and OKEAN in 1970, when Soviet naval forces exited out of the Baltic, along the Danish and Norwegian coasts, and conducted amphibious landings on the Pechengan Peninsula, almost in view of Norwegian territory."¹⁴⁰ More recent exercises have emphasized the northern attack option and the defense of the Kola Peninsula. These have their own historical precedents, for during World War II the Soviets conducted two operations in and about North Norway. Though modest in scope, they foreshadow current Soviet northern strategy.

The first was a naval campaign to cut the German sea lines of communication along the Norwegian coast.¹⁴¹ Beginning in 1941, Soviet submarines began operations to sink German ships carrying Scandinavian iron and nickel ore. Resources available initially were extremely limited, 15 submarines in total, only nine of which were capable of long range operations. By the end of 1942 these submarines were supported by 284 airplanes and a number of torpedo boats, which increased the Northern Fleet's sea lane interdiction capability and began to teach Soviet naval strategists the techniques of coordinating submarine and air operations. By 1943 these forces were capable of contributing significantly to the anti-German submarine effort required to protect the British and American

convoys on the Murmansk run. In mid-1944, the Soviet naval air arm had increased to almost 800 planes, which in conjunction with submarines and torpedo boats were able to implement so-called "overhanging curtain" tactics which, the Soviets claim, sank 1,245 warships and 1,307 transports, crippled German naval forces, greatly reduced their steel making capacity, and hampered their resupply of their forces operating in Finland.¹⁴² These lessons of air and submarine cooperation were echoed years later by Admiral Gorshkov, who said "The principle forces ensuring the fulfillment of the priority missions facing the navy are nuclear submarines and the naval air arm."¹⁴³

The other Soviet World War II operation in Norway was a ground attack into Finnmark in October 1944.¹⁴⁴ Prior to that time, a German mountain corps, of about 53,000 troops, occupied defensive positions between the Norwegian border and Murmansk. A Soviet Army of 97,000 troops was given the mission of expelling these troops from the Soviet Union. The attack was launched on 7 October, supported by air, naval, and amphibious operations. By 22 October, the Soviets were approaching the Norwegian border, which they crossed in accordance with agreements reached in May 1944 between the wartime allies and the Norwegian government in exile. By 24 October the Soviets were at the outskirts of Kirkenes, which was captured with the aid of the Northern Fleet and an amphibious landing. The Soviet operation continued until 29 October, the Soviets reaching as far as the city of Neiden, about 50 km (30 miles) into Norway. This campaign, modest in scope, showed how ground forces, in conjunction with air and naval forces, might operate in the northern region.

Both of these operations have been replicated in recent exercises on

the north flank. The March 1984 exercise which NATO-code named SPRINGEX 84 appeared to be a large ASW exercise in the Norwegian Sea, while the following July's SUMMEREX 85 portrayed a NATO air attack on the Kola, followed by a Soviet defense and counter-attack. The fact that SUMMEREX 85 culminated with an amphibious landing on a simulated hostile shore gives perhaps the best indication of how the Soviets view an attack on Finnmark as necessary to the defense of the Kola Peninsula.¹⁴⁵

Soviet alert deployments also suggest strongly that the Soviets do not view an attack on Norway as necessarily connected to an attack into West Germany. For example, during the night of 7-8 June 1968, the Soviets massed an estimated total of 50,000 troops, with all their tanks and artillery, within two kilometers of the Norwegian border. This deployment was provoked by no action on the part of the Norwegians, who were in their routine state of alert with one battalion deployed on the frontier. The Soviet troops remained deployed in this region for five days and then stood down. Although Moscow has yet to explain this move, most analysts believe it to be a signal to NATO that interference in the 1968 operation of Czechoslovakia would result in a Soviet invasion of Finnmark.¹⁴⁶ One might also reflect that the Soviet's ability to orchestrate such a large demonstration without warning in June, a period of almost 24 hour daylight, casts grave doubts on the warning times discussed earlier in this paper.

A provocation of a different type was associated with the invasion of Afghanistan. NATO's military response to events in Afghanistan was purposely low-key, to provide the Soviets with no pretext for heightened European tension. Nonetheless, the Soviets launched a series of verbal

attacks on Norway, with TASS accusing the Norwegians of initiating mobilization measures and of "provocations amounting almost to an act of hostility."¹⁴⁷ Simultaneously, certain intelligence gathering activity was increased on the Norwegian border. No other NATO ally was subjected to this criticism, nor were Soviet military activities in the Central Region increased appreciably.¹⁴⁸ What made this incident particularly chilling was the memory that similar trumped-up accusations had preceded the Soviet attack on Finland in 1939.¹⁴⁹

NATO's Military Contribution

Norway's place in the integrated NATO military command structure reflects the strategic vision of the early 1950s, when the military structure was constituted.

Norway is assigned to Allied Forces North (AFNORTH), one of four major subordinate commands comprising Allied Command Europe (ACE). The area commanded by AFNORTH, called the Northern European Command (NEC), includes Norway, Denmark, and the Federal Republic of Germany north of the Elbe river (Schleswig-Holstein and Hamburg). Adjacent sea areas are also assigned to the NEC. The NEC itself is divided into three tactical commands, Allied Forces North Norway (AFNON), Allied Forces South Norway (AFSONOR), and Allied Forces Baltic Approaches (AFBALTAP).¹⁵⁰ (See Chart 4.)

AFNORTH is headquartered in Kolsaas, Norway, and is commanded by a British 4-star general. AFNON is headquartered near Bodo, and is commanded by a Norwegian Army 3-star general. AFSONOR is headquartered in Oslo, and is commanded by a Norwegian Air Force 3-star general. AFBALTAP is headquartered in Karup, Denmark, and is commanded by a Danish 3-star

AFNORTH

- Defense of Norway, Denmark, Schleswig-Holstein and the Baltic approaches.
- FRG has assigned one division, 2 naval air wings and Baltic fleet.
- Some US forces earmarked for region.

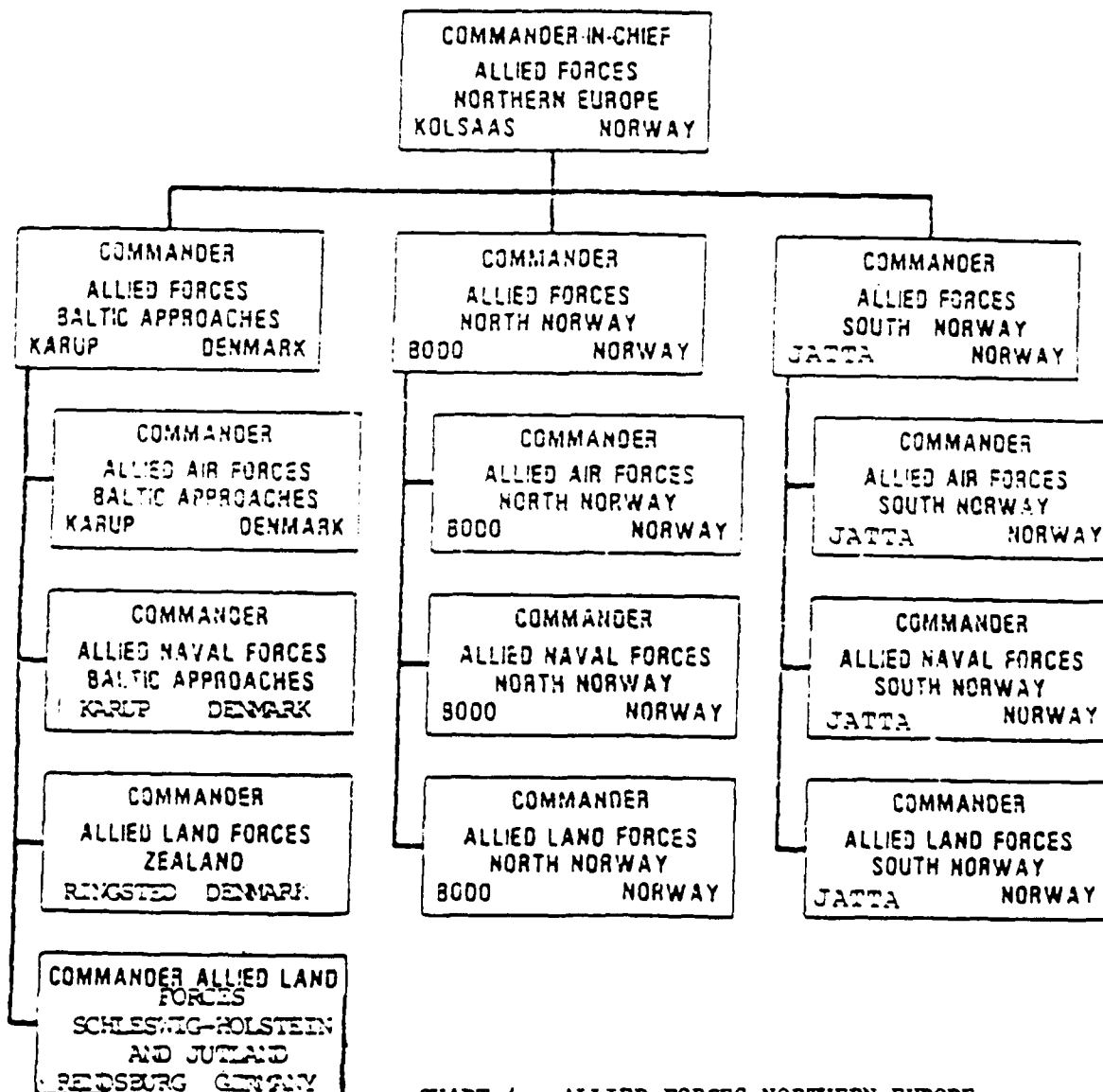


CHART 4: ALLIED FORCES NORTHERN EUROPE

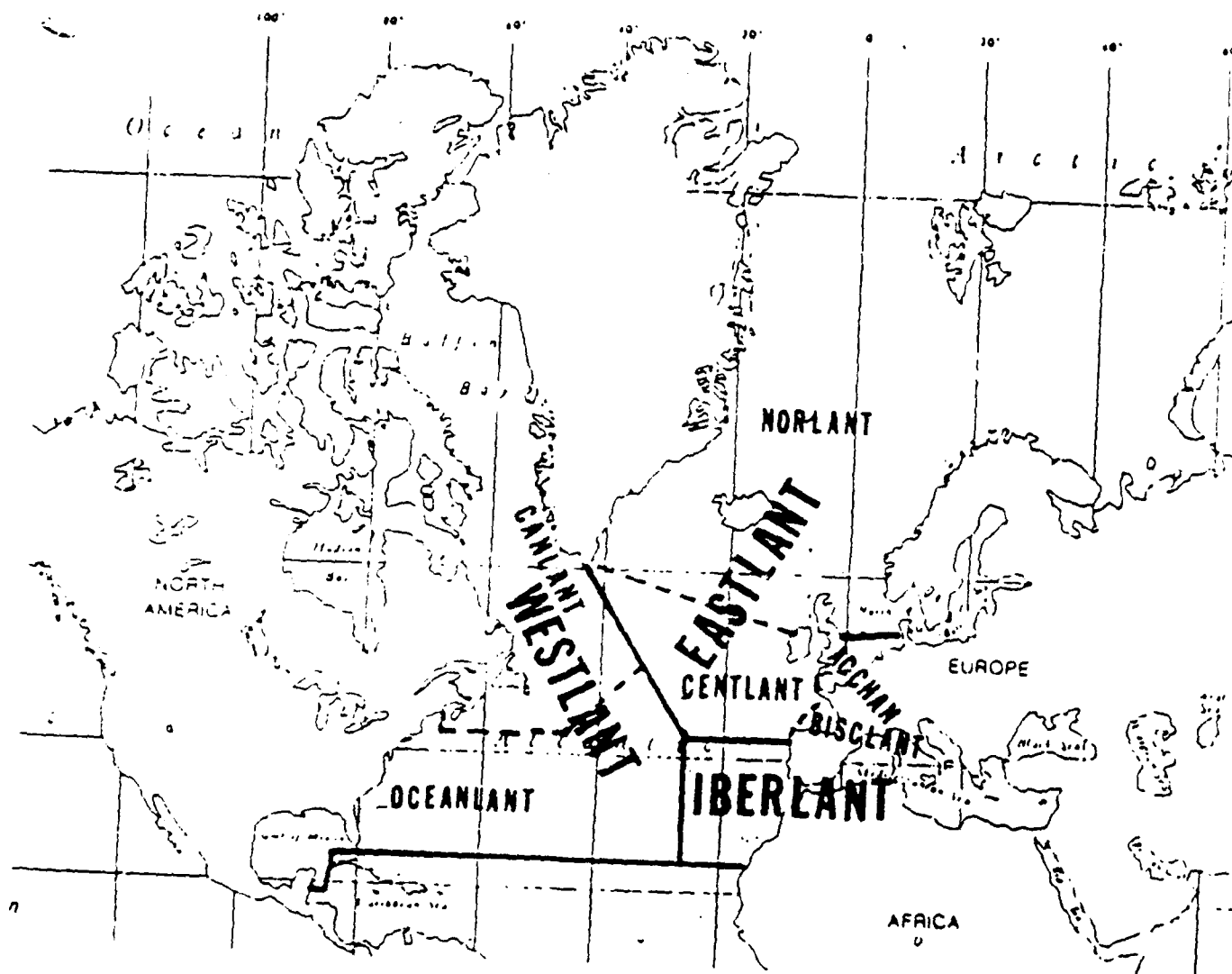
From USAWC NATO Reference Text, p 23

general.¹⁵¹

AFNON's wartime mission is the defense of the NATO northern flank in North Norway. AFSONOR has a threefold mission: the defense of its command area, the deployment of Norwegian reinforcements to AFNON, and the reception and deployment of foreign reinforcements. AFBALTAP's mission is the defense of the Baltic approaches to the North Sea. In wartime, it is to exercise operational command over Danish and German land, sea, and air forces.¹⁵²

Most of AFNORTH's peacetime ground combat power is located in the AFBALTAP region, in the form of the Danish Jutland Division, with three mechanized infantry brigades in Jutland and two in Zealand, and the West German 6th Panzergrenadier Division in Schleswig-Holstein, consisting of two mechanized infantry brigades and an armored brigade.¹⁵³ As will be recalled, only the Brigade North is assigned in peacetime to the AFNON region, and the Royal Foot Guards Battalion, a tank squadron, and an artillery battery to the AFSONOR region.

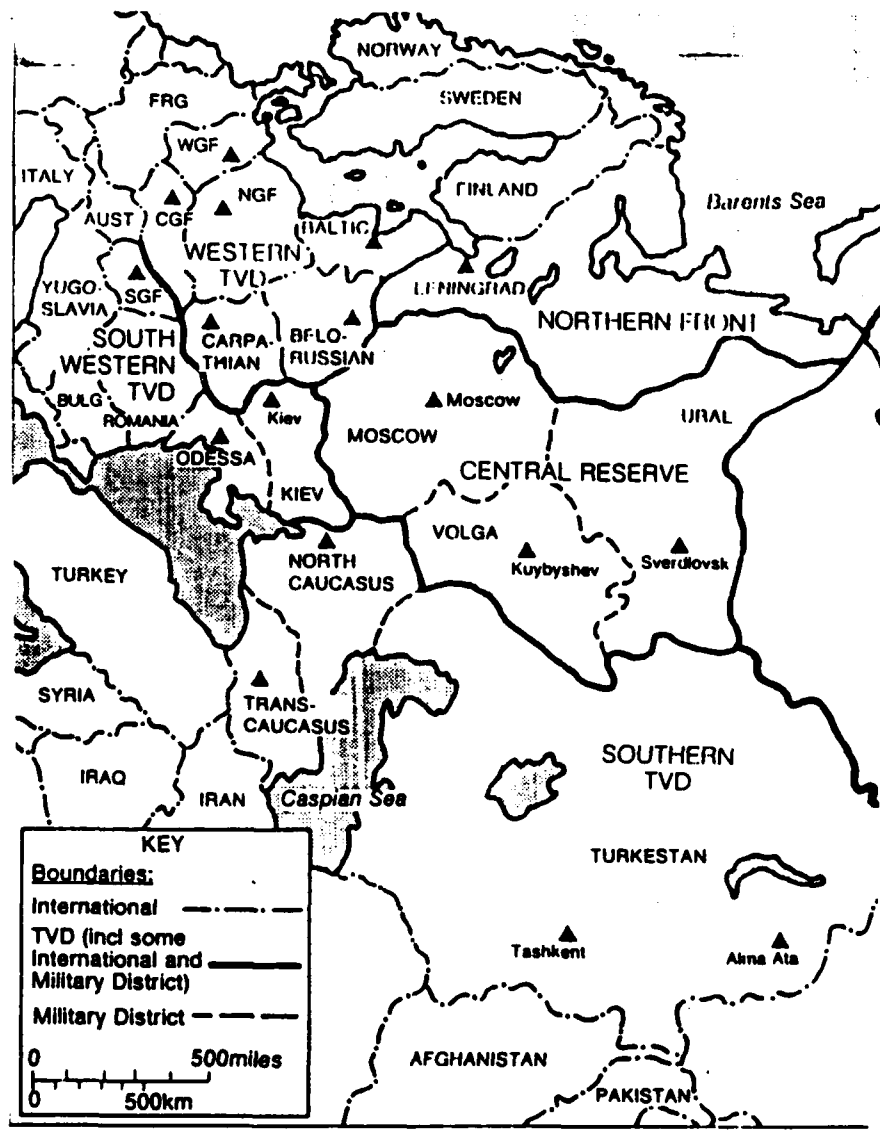
Although AFNORTH exercises command authority over the coastal waters adjacent to his command, the area of the Norwegian and North Seas proper is not assigned to AFNORTH nor to ACE, but rather comprises AFNORLANT, headquartered in Rosyth, UK, a sub-area of EASTLANT, also headquartered in the UK, which in turn reports to ACLANT, headquartered in Norfolk, VA.¹⁵⁴ (See map 11.) Thus integration of ground activities in Norway with naval activities in the Norwegian Sea requires coordination between headquarters in Norway, Belgium, the US, and the Eastern USA. This command structure may have been adequate for the early 1950s, but it does not facilitate the synchronization of ground, sea, and air combat required for successful modern defense of Norway and the Norwegian Sea.



MAP 11: ALLIED COMMAND ATLANTIC

From USAWC NATO Reference Text, p18

The Soviet military system of command of its northern forces is simpler than NATO's. Unlike the situation involving NEC and NORLANT, the Soviets assign the territory of Norway and the Norwegian Sea to the Northwestern Theater of Military Direction (TVD). (See map 12.) Thus coordination among elements of the Northern Fleet (HQ Severomorsk), the Northern Front (HQ Leningrad), and the high command requires shorter links of communication and is potentially more responsive to developments on land and sea. Denmark does not fall into the same military planning area as Norway in the Soviet system, but is assigned instead to the Western TVD



MAP 12: SOVIET EUROPEAN MILITARY COMMAND STRUCTURE

FROM THE MILITARY BALANCE 1989-90,
P 39.

as is West Germany.¹⁵⁵

The vast disparity of forces on Norway's northern border, the greatest between Soviet and NATO forces anywhere in Europe,¹⁵⁶ clearly required prompt allied attention, and implied that success in that region would ultimately depend on NATO's ability to reinforce. As Admiral Hill-Norton put it,

Successful deterrence in Norway depends absolutely critically on our evident ability to reinforce the indigenous forces very quickly. This in turn depends upon lightening-gear contingency planning, with unambiguously earmarked forces and supplies and the means of getting them there....All these elements...must be frequently and routinely exercised.¹⁵⁷

To that end, studies were initiated to identify forces and develop plans for Norwegian reinforcement. One possibility already existed. In the 1960s the SACEUR directed the formation of a rapidly deployable multinational brigade known as the ACE Mobile Force (Land) or AMF(L).¹⁵⁸ This formation was specifically designed to respond to threats on the flanks of Allied Command Europe, but it could not be specifically tasked for Norway, nor did its multinational composition afford it the capability for sustained combat. NATO's own doctrine describes the AMF(L) as "capable of giving a good account of itself if attacked, [it] is primarily intended to demonstrate the solidarity of the Alliance in times of crisis or tension, and to deter any enemy who might be tempted to launch aggression against a limited objective in the hope of facing the Alliance with a fait accompli."¹⁵⁹ Additional forces were required.

By the 1970s, four nations had volunteered to provide reinforcements for Norway. Britain agreed to provide a Royal Marine Amphibious Force, including a contingent from the Royal Dutch Marine Corps. Canada agreed to provide its Canadian Air Sea Transportable (CAST) Brigade, and the United

States agreed to provide a Marine Corps Expeditionary Brigade.¹⁶⁰ (See chart 5.) Because Soviet forces were so much closer to potential Norwegian battlefields, it was evident that the timely arrival of NATO reinforcements could best be ensured if the countries providing them prepositioned their heavy equipment in Norway and made provisions for the troops to arrive by air.¹⁶¹

After a series of studies, agreements on prepositioning were signed with Britain, Canada, and the United States between 1976 and 1981.¹⁶² Predictably, these agreements subjected Norway to harsh Soviet criticism. The Soviets argued that the prestocking agreements violated Norway's policy on basing. The Soviet ambassador in Oslo threatened the Norwegians, telling them that if they went ahead with the prestocking decision, "we would know how to react, how to make trouble for you."¹⁶³

Norway resisted this Soviet pressure. Public opinion polls taken at the time showed a clear majority (58%-34%) opinion that Norway could not withstand attack unless the prestocking decision was implemented.¹⁶⁴ The Norwegian reply to the Soviets stated that, given the current military situation, prestocking was the only way in which the no-basing policy was credible. The government's official statement was that "the base policy is no hindrance to the establishment in Norway of stockpiles of ammunition, equipment, supplies, etc., for allied use."¹⁶⁵

To Norway's great disappointment, however, especially in light of Soviet harassment endured, all of the reinforcement forces offered fell short of the requirements outlined by Admiral Hill-Norton. To begin with, only the CAST Brigade was exclusively earmarked for NEC reinforcement.¹⁶⁶ The others were tasked to respond to various contingencies, although in the case of the UK/NL Amphibious Force Norwegian reinforcement was its

CHART 5

NATO Reinforcement

	USMC <u>MEB</u>	CDN <u>CAST BDE</u>	UK/NL <u>Amp For</u>	<u>AMF(L)</u>	<u>NCF</u>
Strength	17,000*	4,000	6,575	4,000	2,000
INF BNs	3	3**	3	5**	1**
Tanks	17	0	0	0	0
Armored Vehicles	47	74		21	16
Howitzers	30	24	18	24	42
Mortars	51	24	24	81	20
ATGM	144	24	72	77	8
SAM	66	40	12	UNK	UNK
Helicopters	100	35	44	14	UNK***

* Also includes a Marine aircraft group of 74 tactical aircraft.

** One battalion (from Canada) is assigned to the CAST Bde, the AMF(L), and the NCF.

*** Helicopters for the NCF are provided by Norway.

Data compiled from AFSC Pub 2C10 and NATO Composite Force (pamphlet)

most likely mission.¹⁶⁷ If a threat to Norway were to occur at the same time as a threat on NATO's southern flank, the AMF(L) may not be available; if it were to occur at the same time as a contingency in the Persian Gulf, Central America, or the Caribbean, the USMC MEB may not be available.

In the case of the UK/NL Marine Amphibious Force, this unit's combat capability depended heavily on specialized amphibious assault ships, ships that in the 1970s the British government, in a cost saving measure, decided to phase out in favor of non-specialized civilian transports. This decision was reversed as a result of the Royal Marines' experience in the Falklands War, but funding for these vessels was only adequate to replace battle losses and make minor repairs. No replacements were programmed after their planned wear-out date, in the 1990s, nor were adequate helicopters procured.¹⁶⁸ In a 1985 session of the House of Commons Defense Committee it was stated that "if the UK does not replace its amphibious capability, NATO's reinforcement plans for the Northern Flank will be in jeopardy."¹⁶⁹

In the case of the US Marine Corps Brigade, the Norwegians were concerned that their contribution was not so much a result of American concern for the defense of Norway as it was a means for the US to use Norway in its offensive Maritime strategy. Norway originally wanted US reinforcements to come from the US Army, rather than the US Marine Corps, because of the latter's "international reputation as a spearhead in the United States' engagements around the world."¹⁷⁰

The Soviet defense media suggest that Norwegian concerns about the US Marines being viewed as provocative are well founded. The Soviets have historically envied the US Navy/Marine Corps capacity for power

projection, and the relative capabilities of carrier groups and marine expeditionary forces is one area where the Soviets admit inferiority. Regarding the US Marines in Norway, the March 1989 edition of the Soviet Military Review commented that, "The construction of stationary depots of heavy weapons in North Norway has made it possible to airlift a Marine brigade from the US to, say, the polar frontiers of the Soviet Union in a matter of days."¹⁷¹ This concern has been reinforced by previously articulated statements of the US forward naval strategy, and has led to crudely crafted propaganda condemnations of the US Marines. One Soviet politician attributed to the USMC CH-53 helicopter the ability to transport Pershing II missiles, and other publications have called the Marines the "SS men on the dollar" and "the spearhead of aggression."¹⁷²

Nor did Norwegians see the U.S. motivation in defending Norway as unalloyed altruism. In the words of a former chief of the Norwegian Defense Staff,

"the US and NATO's perception of the situation in North Norway is directly related to the Soviet build-up in the Kola peninsula. It has always been in response to something."¹⁷³

A final criticism of the US Marines was the denigration of their winter warfare skills, although improvements have been made.¹⁷⁴

Perhaps most frustrating for the Norwegians, considering the Soviet criticism they endured, was the allies' response to prestocking agreements. Only the US Marine Corps has taken the steps necessary to prestock equipment in Norway in sufficient quantity that deployment requires only air lifting the troops.¹⁷⁵ This equipment is located in hardened sites in Trondelag,¹⁷⁶ and reduces the time required for the MEB to deploy from about 20 days to three or four days. The location in

Trondelag, chosen by the Norwegians to prevent heightened tension,¹⁷⁷ is about 800 km from the Soviet border. Some analysts see this as a major disadvantage, because it means the Marines will compete with mobilizing Norwegian units for the use of routes northward. On the other hand, however, it could put the Marines in country at the right place and time to defend these routes against enemy action.

British and Canadian implementation of prestocking agreements was more disappointing. No appreciable amount of British equipment was ever prestocked,¹⁷⁸ and Canadian prestockage efforts included only enough equipment for one battalion. This equipment is stored near Bardufoss airbase, the airfield into which the lead Canadian battalion was to have arrived by air, so it is well sited to facilitate the rapid deployment of that battalion into a north Norwegian battlefield. Unfortunately, however, the equipment's storage in non-hardened, above ground facilities makes it vulnerable to Soviet air attack.¹⁷⁹

With only one battalion capable of deploying by air, the Canadian CAST Brigade could not contribute to a successful defense of Finnmark or to keep North Norwegian airfields out of Soviet hands. This meant that the ports which the rest of the Brigade, deployed by sea, would have to use were untenable, denying entry of Canadian forces into the combat zone. The only ways to solve that problem were to preposition more equipment and make the whole brigade air transportable, which was deemed unaffordable, or to dispatch the sea-borne component of the CAST Brigade some 10-14 days in advance of the air component. This latter move was seen to be politically unacceptable, because it would put Canada in the position of committing a provocative act before the clear indication of imminent hostilities which, it was argued, would worsen, rather than improve, a

crisis.¹⁸⁰

For Norway, the failure to attain reliable commitments of allied reinforcement was disappointing. One Norwegian analyst summed up his country's frustration:

It proved to be difficult to have forces earmarked for the defense of Norway....Among other things, because [the allies] had so little to offer. This led to increasing annoyance in Norway.¹⁸¹

GERMANY OR NORWAY? CANADA'S HOBSON'S CHOICE

It is indeed unfortunate that Canada turned away from commitment in Norway, because Canadians and Norwegians have so much in common. Both are northern countries, with long standing democratic traditions and commitments to the social welfare of their people. Both managed to attain their independence from monarchies without having to resort to violence. Both suffered in World War II, a war they had absolutely no hand in starting.

The 1987 White Paper's rationale for deleting the commitment to Norway was that the deficiencies that needed to be corrected "could only be done at great cost. If they were not corrected, it would be as obvious to our opponents as it is to us and, consequently, these commitments would contribute little to deterrence."¹⁸² A main theme of Canada's White Paper is the need to reduce the "commitment-capability gap," i.e. to tailor military commitments to match the funding available.¹⁸³ Canada supports a number of useful military efforts in the world, including strategic deterrence through NORAD, conventional defense in Europe, sovereignty protection, and UN peacekeeping.¹⁸⁴ To the citizens of Canada, assuming they had access to no additional information, the argument could be made

that, even without the Norwegian commitment, Canada shoulders more than its share of the responsibility for world security and peace.

Such an argument would carry little weight, however, with a citizen of Norway. (See chart 6.) Norway's defense expenditures measured as a percentage of GDP are 57 percent greater than Canada's; measured as per capita expenditure they are 39 percent greater. Norway's peacetime military structure involves .85 percent of its citizens, as compared to only .32 percent for Canada. Total citizens obligated to military service constitute 5.6 percent of Norway's population and only .52 percent of Canada's. Even in those areas where the Canadian perception is that their defense participation is significant, Norwegians carry a proportionately heavier burden. In air defense, even with Canada's NORAD commitments, it is able to spread the cost of each CF-18 among over 220,000 of its citizens. Only some 67,000 Norwegians must pay for each of that country's F-16s.

Peacekeeping in particular is an area which Canadians seem to regard as a significant contribution their country makes to world peace. It is, indeed, the only sector of Canada's defense establishment that has increased appreciably over the last three years. But Norway supports UN peacekeeping initiatives as well, and as a percentage of their peacetime military structure, the Norwegian contribution to UN peacekeeping is 78 percent larger than Canada's.

Neither can Canada argue very strongly that its deployment in Germany is such an increased involvement in Europe that it compensates Norway for the deletion of the CAST commitment. The Canadian Brigade in Germany is about the same size as the Norwegian Brigade North, and even with consolidation and Canada's renewed emphasis on mechanized warfare in

CHART 6

	<u>Canada</u>	<u>Norway</u>
Population	26,065,000	4,210,900
GDP (1988 US \$)	496.1 bn	90.4 bn
Def exp (1988 US \$)	8.0 bn	1.8 bn
Def exp as % of GNP (1987)	2.1	3.3
Trend since 1987, % GNP	- .1	+ .2
Defense exp per capita	307	426
Peacetime military	84,600	35,800
% of population	.32	.85
Total mil obligation	136,800	235,800
% of population	.52	5.6
Air defense aircraft	118	63 (F-16 only)
#s of citizens who share cost of one aircraft	220,890	66,840
Troops supporting UN peacekeeping	1,221 (various places)	887 (in Lebanon)
% of peacetime military	1.4	2.5

Data compiled from the Military Balance 1989-90.

Germany, Norway maintains more tanks (117) than Canada (114).¹⁸⁵ Given current resources, the only strong argument Canada can make that its contribution to security in area is proportionately equal to or greater than Norway's is that it contributes more to the security of the Atlantic SLOCs, that is, that Canada's 19 frigates and three submarines contribute more than Norway's five frigates and 12 submarines.¹⁸⁶

The 1987 White Paper devotes little space to the impact on Norway of Canada's decision to consolidate, saying only that "satisfactory alternative arrangements for the defense of northern Norway are at hand."¹⁸⁷ Considerably more space is devoted to the result in Central Europe: "The government has concluded that consolidation in southern Germany is the best way to achieve a more credible, effective, and sustainable contribution to the common defense in Europe."¹⁸⁸ It has been argued that what has prevented an attack on Norway is not the deterrent of Norwegian or allied forces, but rather a clear understanding between the Soviets and the United States as to what response to military activity one can expect from the other, and one of the most important factors is that understanding is the balance that exists in Central Europe. Norway, which prohibits nuclear weapons or foreign troops on its soil, is secure because of the nuclear weapons and foreign troops deployed in Germany.¹⁸⁹ In this context, there is a certain logic to the Canadian decision to consolidate its ground force commitment in West Germany. Rather than devote resources to a brigade unable to deploy in time to deter or defeat a Soviet attack in Norway, why not contribute more to the credible deterrent in West Germany, which is a much greater deterrent, and does more for the security of Norway than did the commitment of ground troops to Norway?

The fallacy of this argument becomes apparent when the measure of

scale is again applied. Using its own figures, the 1987 White Paper attributes to the SACEUR a total of 26 NATO divisions in Central and Northern Europe.¹⁹⁰ Even allowing for the possibility that this figure includes the four Norwegian divisions, activated only in wartime, the Danish Division and the 6th Panzergrenadier Division, this leaves 20 divisions in the Central Region. Assuming the provisions of the White Paper were completely implemented, the additional half-division Canada would provide would represent only a 2.5 percent enhancement of the defense of the Central Region, as compared to a 20-50 percent (depending on who it is assumed will show up) reduction of forces defending the North Flank.

Furthermore, no guarantees exist that the additional half-division would participate in the defense of Central Europe at all. A mechanized brigade deploying to Europe from eastern Canada would be even more dependent on the Atlantic SLOCs, and consolidation has reduced, rather than enhanced, the Alliance's ability to secure them. In the words of John Halstead, retired former Canadian Ambassador to NATO, "There is no indication that defense planners in NATO Headquarters or SHAPE see any advantage to the Alliance in Canada's replacing one standby commitment with another of the same size."¹⁹¹ Without question, Canada had valid military reasons for consolidation, but these were shortfalls in deployability and sustainment means for Norway, not a need to bolster military capabilities in Germany.

The real reason for consolidation in Germany does not seem to be military, but political, and despite the White Paper's emphasis on an independent Canadian policy, it does not seem to have been precipitated by

decisions made in Brussels or Ottawa, but by pressure from Washington and Bonn. Beginning in March 1985, the Canadian government announced a series of planned measures which would have enhanced both the capabilities of the CAST Brigade and of the Canadian Forces in Germany. These pronouncements were followed by a US/Canadian declaration on security issued at the Reagan-Mulroney "Shamrock" summit in Quebec City, which included the statement: "We attach great importance to our continuing commitment to station Canadian and United States' Forces in Europe."¹⁹²

This statement implied that Canada intended to continue the commitment of its ground force in Germany. What was not made public, however, was that Canadian defense planners were already considering deletion of one of the two European commitments as they prepared the 1987 White Paper. Evidently, the preferred option for continuation was the commitment to Norway, because in late 1985 Ottawa approached several NATO countries asking their reaction to a Canadian withdrawal from the Central region in favor of Norway. Resources redeemed from the German withdrawal would be put toward prepositioning in Norway, so that the CAST Brigade would be converted into a truly air-transportable force, with only the troops requiring transport.¹⁹³ To the Germans, and even more to the Americans, such a plan constituted nothing more than a Canadian attempt to back out of European defense commitments, and might start a chain reaction of smaller NATO countries pulling their troops out of Germany.¹⁹⁴

This put Canada in the worst possible situation, having to decide which of its defense pledges it would live up to. For years NATO had been urging Canada to improve its capabilities in Norway, without suggesting that it decrease commitments elsewhere. Unable to raise the money promised in its election campaign in 1984, the Mulroney government could

only heed those suggestions at the expense of the German deployment.¹⁹⁵ When Washington and Bonn objected, Canada had to break faith with commitments made to Norway. In a final bid to save face, the Canadian government approached Norway with a proposal that an exception to the no-basing policy be granted for a Canadian formation, which would have at least cut the sea and air transport requirement for the CAST Brigade down to more modest proportions. As might have been expected, the Norwegians refused.¹⁹⁶

What may be the most candid, albeit understated, comment on the military impact of consolidation was General Manson's observation that "depending on the response of our allies, and of NATO itself, the short term impact on SACEUR's Rapid Reinforcement Plan may be negligible, or it may be negative."¹⁹⁷ More appropriate, though unsaid, would be a comment on the political gains. In the short term, consolidation kept the smaller NATO countries from withdrawing their forces from Germany. Over the long term, however, one must reflect that this political goal was accomplished by breaking faith with Norway, whose record of military commitment and diplomatic resolve is unsurpassed by any of the countries benefitting from or influenced by consolidation. As NATO faces the 1990s and the next century, military and political changes in Europe will likely reduce the military relevance of many of those countries, but the strategic significance of Norway and its importance to the Alliance will be undiminished and is more likely to increase. These possibilities are the subject of the next section of this study.

To summarize this section, the following conclusions appear appropriate

- Norway's nonprovocative foreign and defense policies are inadequate to insure its security. In the final analysis, Norway's fate is inextricably bound to the strategies of the Soviet Union and the United States. In that sense, its modern security dilemma is similar to that of World War II.

- A Soviet attack to seize the North Norwegian province of Finnmark, or to seize the entire country, could provide decisive military advantages. Without timely, combat-capable reinforcement, the Norwegians could probably not defeat such an attack.

- There is no current credible allied deterrent force that could be dispatched to Norway in time to discourage such an attack. Further, the most combat capable reinforcement element, the USMC Expeditionary Brigade, may actually provoke, rather than deter, a Soviet attack.

- The general military situation, and in particular the balance in Europe, has been the main guarantor of Norway's security. Without that balance, security crises might be more likely to involve armed conflict, and thereby heighten the danger to Norway.

- The loss of Norway, or of significant portions of Norway, will isolate the North American from the European members of the Alliance.

SECTION IV

THE 1990s - CHANGES, CHALLENGES, AND OPPORTUNITIES

ARMS CONTROL AND POLITICS

The advent of the 1990s promises to bring change at an unprecedented rate in arms control and Eastern European political pluralism. Among the most astonishing of these developments has been the acceleration of conventional arms control talks. Since the opening of the Mutual and Balanced Force Reduction (MBFR) forum in Vienna in 1973, talks have been mired in disagreements on weapons equivalency, levels of forces, geographical asymmetries, and verification measures. After 12 years of negotiating, the only proposals to come out of the talks were marginal reductions on each side, 11,500 Warsaw Pact forces for about half as many NATO troops.¹⁹⁸ Issues on information exchange and verification were never worked out, so these proposals died.

Acceleration in the arms control process began in April of 1986, when Soviet General Secretary Gorbachev proposed a new formula for "substantial reductions in all components of the land forces and tactical air forces of all European states and the relevant forces of the USA and Canada deployed in Europe."¹⁹⁹ Gorbachev went on to describe the "Atlantic to the Urals" (ATTU) definition of the European area to be subject to arms control agreements.

In June 1986, Gorbachev made an informal proposal in a speech in Budapest, calling for initial troop reductions of 100,000 to 150,000 troops in two years, followed by mutual alliance reductions of 25 percent by the 1990s.²⁰⁰ NATO responded with a declaration in December 1986 which accepted the ATTU area as a basis for negotiation and called for new

conventional arms reduction talks.²⁰¹ After some further negotiations, agreements were reached to begin the formal talks on Conventional Armed Forces in Europe (CFE) in July 1987.

Perhaps more than any other single event, progress in conventional arms control was accelerated because of President Gorbachev's unilateral military force withdrawals and reductions announced by the United Nations on 7 December 1988. Gorbachev said that by 1991 the Soviet armed forces would:

- withdraw and disband six tank divisions from the GDR, Czechoslovakia, and Hungary.
- from the same countries, withdraw assault landing troops, assault crossing units, and several other offensive units.
- reduce Soviet forces in these countries by 50,000 troops and 5,300 tanks.
- reduce Soviet forces elsewhere in the Western Soviet Union by 10,000 tanks, 8,500 artillery systems, and 800 combat aircraft.
- reorganize remaining Soviet forces in Eastern Europe into a clearly defensive structure
- reduce the overall size of Soviet forces by 500,000 troops, with reductions in the eastern USSR as well.²⁰²

In the fall of 1989, Gorbachev also announced reductions in the Soviet submarine fleet, to include a withdrawal of all SLBM submarines from the Baltic.²⁰³

The full scope and complexity of conventional arms control go well beyond the limits of this paper, but in late 1989 the CFE proposed limits on so-called "stationed forces," i.e., those non-indigenous forces

stationed in Germany. These are relatively straightforward and relevant to the situation on the North Flank. NATO proposed reductions of US and Soviet manpower to a level of 275,000 troops from each stationed outside its own territory, in Europe. For the US and USSR these reductions would remove 30,000 and 300,000 troops respectively. NATO proposed similar limits on "stationed" tanks (32,000), artillery pieces (1,700), and armored troop carriers (6,000), which would require rather modest reductions from US forces in exchange for five-fold reductions from the Soviet Union.²⁰⁴ Key negotiating points to be resolved included the Warsaw Treaty Organization's insistence that stored equipment be included in any limitations on "stationed" forces, and that the other nations which have "stationed" troops be included in addition to the United States,²⁰⁵ a provision which would require a total reduction of US, British, and Canadian troops on the order of 100,000.²⁰⁶

At the end of 1989, these proposals seemed truly significant. In February 1990, however, U.S. President Bush went even further. The Bush proposal would reduce U.S. and Soviet stationed forces in Central Europe to 195,000, with an additional 30,000 U.S. troops permitted in Britain, Italy, and Turkey.²⁰⁷ After some reservations, the Soviets responded favorably to the Bush proposal, and at this writing it appears it will be the basis for an agreement to be signed in 1990.

Complicating the security picture is the dramatic political change in Eastern Europe. Aspirant democracies are already being established in place of the communist regimes, looking for their support to the West rather than to the Soviet Union. Impatient with the Soviet troop withdrawal timetable, Czechoslovakia, Hungary, and Poland have called for the imminent withdrawal of all Soviet troops from their territory, and

there are reasons to expect a similar East German demand in the near future.²⁰⁸

These developments bring into question the future of the Warsaw Pact. Although the Hungarian defense minister has suggested that the Pact continue for the near term as an alternative to an unordered security environment, prone to cause miscalculation,²⁰⁹ it is certain that the nature of the Pact will change significantly. Most certainly, the new Eastern European government will not accede to a Warsaw Pact used as a rationale for Soviet troops to police them. Just as surely, the Soviet Union will not accede to a hostile eastern Europe. Between those extremes, a number of alternative outcomes is possible, but it is reasonable to expect a series of declarations of friendship for the Soviet Union in exchange for Soviet guarantees not to interfere with Eastern Europe's ever-growing ties with the West. In this framework, it is entirely possible that Eastern European governments could conclude friendship treaties with the Soviets while simultaneously seeking security guarantees from Western Europe or the United States. Soviet Marshal Sergei F. Akhromeyev has conceded that one or two of the Warsaw Pact's members will probably leave the alliance.²¹⁰ Hungary has already expressed its desire to leave the Warsaw Pact eventually.²¹¹ The Czech foreign minister, Jiri Dienstbier, has proposed the creation of a European security commission.²¹²

The impact of CFE reductions combined with the political transformation of Eastern Europe poses interesting problems for NATO. For the short term, CFE reductions will require no restructuring of NATO forces, but follow-on reductions will eventually require rapid deployment

and tactical maneuver which exceed the capabilities of the currently-fielded mechanized forces. The current strategy of eight army corps in linear formation on the inter-German and German-Czech border will no longer be feasible. A non-linear strategy, which calls for rapid response and counter-attack, will be more relevant, and will provide the insurance that the NATO's defensive forces will survive long enough to be reinforced.²¹³

U.S. intelligence indicates that the time available for effective reinforcement has increased. Estimates currently conclude that military and political developments in Europe have rendered the Soviet Union incapable of the "bolt-from-the-blue" attack, or of the heretofore realistic and more widely accepted scenario of attack following two weeks of mobilization. In a report compiled for the U.S. Secretary of Defense, the consensus judgement of the Joint Chiefs of Staff, the Central Intelligence Agency, and the Defense Intelligence Agency is said to have been that "we would have some 33 to 44 days of warning time."²¹⁴

The synergy of Conventional Arms Control and Eastern European political developments has imparted new impetus to the process of tactical nuclear arms control as well. Somewhat overshadowed by conventional arms talks, NATO's defense ministers meeting in Vilamoura Portugal in October 1989 ordered a study on the role of nuclear weapons in Europe once conventional arms are reduced in Warsaw Pact countries.²¹⁵ U.S. House Armed Services Committee Chairman Les Aspin has singled out short range nuclear artillery as "the most dangerous and destabilizing weapons." The pressure in a conflict is to "use them or loose them," implying they should be among the highest priority nuclear weapons to be eliminated.²¹⁶ Recently, the U.S. Joint Chiefs of Staff have issued an updated assessment

which, according to Chairman Aspin, concludes that the reduction of Soviet troops in Central Europe gives NATO the capability of mounting an effective defense without nuclear weapons.²¹⁷

Without doubt, the concept of employment for tactical nuclear weapons is no longer as politically valid as it once was. The longest ranged of the U.S. systems, the Lance, is capable of launching one to 10 kt warheads a distance of less than 150 km, meaning they would impact in East Germany, Poland, Czechoslovakia, or Hungary, countries no longer considered hostile in the West. The West Germans have expressed their strong opposition to the deployment of Lance II, and have indicated a desire to rid both Germanies of all nuclear weapons.²¹⁸ In April 1990, NATO announced that the Lance follow-on will not be fielded.²¹⁹ West Germany's foreign minister, Hans-Dietrich Genscher, has emphasized that the reduction of short range nuclear missiles and nuclear artillery was essential to a new and secure Europe, and must not be excluded from disarmament talks.²²⁰ The position of the SACEUR is that "even though the alliance leadership is optimistic about our ability to cut the total number of weapons, it is also very clear that that will not eliminate short-range nuclear systems entirely."²²¹

This stance correlates with Warsaw Pact proposals for a nuclear free zone on either side of the former iron curtain, and casts doubts on NATO's ability to stand its ground against such a proposal in the face of the West German position. The Warsaw Pact has long held that such limitations must follow, or be contingent upon, CFE accords.²²² Such a removal of tactical nuclear weapons could remove a serious restraint on Soviet policies,²²³ and Soviet analysts have called for nuclear artillery to be

the next class of weapons to be eliminated. Soviet arms control expert Vladimir Beronovsky told the American Association for the Advancement of Science that after a CFE agreement is reached "Nuclear artillery deserves special attention because it is integrated into the conventional forces and would start escalation."²²⁴

War in a post-CFE setting could then be envisioned as an initial clash between the peacetime armies permitted by CFE limits, a clash that by necessity would be inconclusive, for if a peacetime structure gave one side a decided military advantage, the other side would not have agreed to it in the CFE treaty.²²⁵ With both sides capable of only much diminished escalation to the level of tactical nuclear war, conflict resolution will depend on the will and the capability of the two sides to reinforce.

Both sides seem to be aware of these developments. In the U.S., they are the justification for excluding naval forces from CFE negotiations in order to maintain a capability to respond if the Soviet Union should "break-out" of CFE imposed limits.²²⁶ In addition, the U.S. position on preserving its stocks of prepositioned equipment in Germany is a move to facilitate reinforcement.²²⁷ The Soviet reinforcement problem is generally viewed as less difficult because its lines of communication are over land, not maritime, but Soviet reinforcement is affected by recent political developments as well. No longer able to subordinate the Warsaw Pact armies to their military control, the Soviets must now plan for the diversion of military forces to secure lines of communication in Poland, Hungary, and Czechoslovakia, countries which might never develop a combined military capacity capable of defeating a Soviet attack, but which are likely to emulate the Finnish strategy of deterrence through a long term threat to the Soviet supply and reinforcement capability. A recent

Defense Intelligence Agency assessment reportedly concludes that Soviet ammunition and fuel sufficient for 30 days of operation are being stockpiled in Eastern Europe,²²⁸ and it is possible that Soviet strategy for the post CFE period provides for the rapid deployment of airborne or air mobile units to secure these stocks and secure the roads and railroads for follow on reinforcement.

NORWAY--STILL A FRONT LINE STATE

From the Scandinavian perspective, the developments in arms control and Eastern European politics constitute a mixture of good and bad news. Force reductions in the Baltic area and the newly independent policies of East Germany and Poland have reduced the threat from that quarter. If the Baltic republics--Latvia, Estonia, and Lithuania--achieve political independence, the Soviet Union will lose direct access to the headquarters of its Baltic Fleet, Kaliningrad,²²⁹ and rather than embark on an expensive program to upgrade facilities in the old port of Kronshtadt, would more likely sustain only a coastal defense capability in that region.

On the north flank, however, the posture of the Soviets is no less threatening than previously, and in some ways is more so. No reductions have been proposed or discussed for the Northern Fleet.²³⁰ Although the Soviets have proposed that the Arctic be converted into a nuclear free zone, they maintain the only nuclear arsenal in the region and the only fleet with an offensive capability.²³¹ Their modernization programs proceed unhindered by reductions elsewhere. The TBLISI class carriers and AKULA class submarines, both apparently intended for the Northern Fleet,

have already been discussed. The naval BLACKJACK bomber continues to be fielded. The Soviets have consistently held that such land based planes with naval missions be excluded from convention forces arms reduction talks.²³² Development continues on the look-down/shoot-down capability required in the MiG-35 to engage cruise missiles.²³³ Unlike Central Europe, the northern region would facilitate Soviet operations without having to contend with interference from resentful former satellites.

Furthermore, the extended warning times of Soviet attack resulting from developments in the Central Region do not apply on the north flank. The June 1968 experience illustrates how quickly an overwhelming ground force can be constituted on the Norwegian border, a capability not diminished under CFE. The scope and frequency of naval exercises on the Kola Peninsula pose other difficulties for they could easily be used to mask actual attack preparations. As one analyst concluded, "increasing westward movement of Soviet naval maneuvers and amphibious landings create difficulties in determining whether those movements are routine or an indicator of an attack."²³⁴ As was summed up by Soviet foreign minister Shevardnadze in Ottawa, "Let us face the truth. Today the easiest way to launch a surprise attack, a military invasion or an aggression is from the sea."²³⁵

Most analysts believe that a deliberate, calculated attack in a post-CFE Central Europe is unlikely. If European conflict were to occur it would probably be an outgrowth of a crisis in Eastern Europe or a reaction to a conflict elsewhere in the world.²³⁶ As has been shown, these are precisely the crises and conflicts that have threatened Norway from the 1960s to the present. Therefore, while the 1990s portend a relief from the burdens of tension and military spending for most countries, Norway is

raising its defense budget by 2.5 percent in 1990, one of the largest increases in NATO.²³⁷ In the words of former Norwegian Defense Minister Johan Jorgen Holst "With respect to the situation on the Kola Peninsula or the Leningrad Military District, it is clear that we haven't much positive change. The forces deployed there have certainly not been reduced, and the naval forces continue to grow...We cannot take solace or relax our guard...."²³⁸ The current defence minister, Per Ditlev Simonsen, has stated "As far as we can see, there is no change in Soviet military capability in the Kola. The main changes are old equipment being replaced with modern, more efficient equipment. Our evaluation is that the military capacity has been increased."²³⁹ The Norwegians are very aware that the eventual destination of Soviet troops withdrawn from Central Europe may be the divisions in the Kola peninsula, bolstering their combat capabilities and the threat to Norway. As Norway's prime minister Jan Syse has said, "Soviet units cannot merely be withdrawn from Eastern Europe to be transferred to other areas such as the North Flank. Enhanced security can only be achieved by a build-down of forces."²⁴⁰

NATO'S RESPONSE TO THE PROSPECT OF PEACE

Recent statements made by NATO officials reflect a certain frustration in the face of European security developments, a sense that something must be done, but no sense as to what. "It's the same kind of a situation (as the post World War II period) in that we are planning for completing new circumstances. We can make mistakes now that will haunt us twenty years from now,"²⁴¹ opined one official recently, but the commentary continued to say "All the council (NATO's governing body) can do is sit around and

talk of managing change. We're not managing change. It's just happening."²⁴²

Key among the issues and changes that NATO must manage, and which very well may "haunt us twenty years from now," are the German question, the question of transatlantic reinforcement, and the issue of stationed troops.

GERMANY--NEW CAPABILITIES AND WILL

The wide margin of victory for the Christian Democratic Union in the 18 March 1990 elections leaves little doubt that the will of the German people is to forge a united country.²⁴³ Once unification is achieved, the new Germany will emerge as the strongest power in Europe. With a gain in population of over 16 million, including almost two million males of military age (18-32),²⁴⁴ the new Germany will clearly have the military capacity to overshadow any other European country except for the Soviet Union, and perhaps not even the Soviets will be stronger after the dissolution of their empire.²⁴⁵

Soviet protests notwithstanding, the international consensus is that the united Germany will contribute most to European security if it is fully integrated into the EC and NATO. The shape of NATO commitment is not yet decided. Both German and U.S. officials have agreed in principle that NATO will not extend its military presence into the territory of the old GDR. German foreign minister Hans-Dietrich Genscher has stated "NATO territory will not be extended eastward, i.e., closer to the border of the Soviet Union."²⁴⁶ U.S. President George Bush has stated that "There might be some flexibility, obviously, on deployment of NATO forces, but in terms of [NATO] membership, I think that is the most reassuring and stabilizing

concept."²⁴⁷ Some analysts, however, notably Ted Carpentier of the CATO Institute, suggest that Soviet insistence on a neutral Germany will result in a compromise, which leaves Germany within NATO's political, but not its military structure."²⁴⁸ Other analysts discount such a suggestion because it would mean the complete removal of U.S. troops from German soil, which would not be in the interest of the Germans because of the reduced deterrent value, and would not be in the interest of the Soviets because of the reduced restraining influence against a possible resurgence of German aggressiveness.²⁴⁹

The resolution of these issues is likely to require the newly unified Germany to develop a capability heretofore not characteristic of the heavily mechanized West German military, the capability of rapid deployment from the Elbe to the Oder in order to be able to confront threats to its demilitarized eastern portion. Further, within NATO, and especially within the United States, the longer and more effectively the Germans can contend with such a threat by themselves, the less the requirement for reinforcement. Thus, a strong deployable military in the new Germany will help the U.S. contend with its shortfalls in its ability to reinforce. These capabilities, however, are unlikely to result from current trends in both East and West Germany toward reduced military spending. East Germany's defense minister has called for a limit of 150,000 to 200,000 for the unified Germany's military,²⁵⁰ and West German Foreign Minister Hans Dietrich Genscher has called for a program of reduced arms as well.²⁵¹ In order to keep NATO forces under CFE imposed limits, it is likely that the "two plus four" talks on German unity will establish ceilings for the German armed forces, which may prevent their

being able to meet all their defense requirements without allied assistance²⁵²

NATO AND THE U.S. SEA LIFT SHORTFALL

That the deterrent to a war in Europe depends more upon the ability of the United States to reinforce NATO increases the strain on an already problematical U.S. sea lift capability. The accepted estimated requirement of 10 armored and mechanized divisions in the first 10 days of combat, and at least 1,000 sailings in the first 30 days,²⁵³ is an extraordinary requirement which can only be supported by sea lift - worse if stored equipment is reduced in a CFE limits. Not only is the U.S. sea transport fleet inadequate for the job, but also ports of embarkation and especially debarkation will be strained beyond their known limits.²⁵⁴ Thus the reinforcement actions will present the Soviets with three lucrative sets of targets - congested ports on the U.S. coast, the convoys themselves, and even more highly congested ports in Europe.

In addition, although NATO has resisted Soviet pressure to include naval forces in CFE talks, the increased requirement for deployability inherent in the reduction of North American troops in Europe in the face of shrinking budgets will likely drive a shift in shipbuilding priorities toward troop transport, to the detriment of the U.S. Navy's forward defensive strategies.²⁵⁵ In effect, the CFE process threatens to impose non-negotiated constraints on the U.S. Navy's offensive capability while leaving the Northern Fleet unimpaired. This imbalance has consequences for the alliance. In the words of one analyst of naval strategy, "They realize that the Soviets don't necessarily have to win a northern Atlantic battle to win Europe, but we do."²⁵⁶

In order to help the Norwegians defend themselves and protect the transAtlantic SLOCs, NATO has created a multinational force known as the NATO Composite Force to replace the CAST Brigade, consisting of an artillery battalion each from the U.S. and the FRG, plus a Canadian infantry battalion.²⁵⁷ The NATO Composite Force is a misnomer, for it is not really a composite force. According to NATO's own literature, the force does not exist in peacetime, but "until assembled at the request of the SACEUR, all units assigned to the NCF are stationed in their home countries."²⁵⁸ Without a headquarters, the NCF provides each of its battalions as an individual unit to "take its place along side Norwegian forces in resisting aggression, testifying to the fact that NATO Allies work together to prevent war, but are ready to fight together, if need be, to preserve their freedom and security."²⁵⁹ Although the NCF is supposed to be exclusively earmarked to be "sent, at short notice, to Northern Norway to demonstrate the solidarity of the Alliance...",²⁶⁰ the individual battalions are not exclusively earmarked for NCF commitment.

The Canadian contribution, in particular, demonstrates the problem of multiple taskings. Required to respond both to AMF(L) and NCF deployment orders, the Canadian battalion could find itself on another NATO commitment when the war broke out in Norway. Also, this battalion is not exempt from non-NATO taskings, as currently it is scheduled for a six month tour of peacekeeping duty in Cyprus in 1991,²⁶¹ with obvious problems for continued readiness for deployment to Norway. In the words of one Canadian defense studies expert, "Despite continued budget cuts, they are being asked to do more with less. We are simply running out of forces. They are in Iran-Iraq, Namibia, Cyprus, and it's hell on the guys

and their families."²⁶²

STATIONED FORCES--AN EVAPORATING REQUIREMENT

In the CFE negotiations, "stationed forces" are forces from one nation "stationed" in another.²⁶³ Those NATO land forces "stationed" in FRG are listed in Chart 7. In NATO literature, the original task of the integrated military commands was "building, in the shortest possible time, well-equipped and well-trained forces in Europe capable of defending NATO territory against aggression."²⁶⁴ At that time (1951) large numbers of Soviet ground forces were massed on the inter-German border. The Korean War had caused NATO planners to view the Soviets as resolutely aggressive, and the territory that would become West Germany was incapable of defending itself.

With Soviet ground forces only some 400 kilometers from Amsterdam and Brussels and 550 kilometers from Calais, and no German forces to stop them, it made sense for the Dutch, the Belgians, and the British to deploy forces in Germany. In a post CFE Europe, however, virtually all Soviet combat forces will be in the Soviet Union, some 900 kilometers more distant, meaning that with the warning times predicted, Belgian, Dutch, and British forces will be able to deploy from their own territory and reach the potential battlefield before the Soviets. Thus the need for countries like Belgium and the Netherlands to maintain their presence in Germany has come into question, and prompted the SACEUR to issue an appeal to defer reductions in West Germany until after a successful CFE negotiation.²⁶⁵ In fact, history very well may record that the last significant accomplishment of the current NATO military structure was to retain its disciplined coherence long enough to conclude a CFE treaty.

CHART 7

NATO Land Forces Stationed in the FRG

<u>Country</u>	<u>Personnel</u>	<u>Divisions</u>	<u>MBT</u>
USA	204,000	4.6	3,000
UK	55,000	1.5	840
France	48,500	1	541
Belgium	25,000	2.4	359
Netherlands	5,500	.2	112
Canada	4,600	.2	59
TOTAL	342,600	9.9	4,911

Data compiled from The Military Balance 1989-90 and USAWC NATO Reference Text

After the treaty, it is likely that some of the countries will seek to fulfill their treaty obligations in other ways. Belgium, the Netherlands, and Great Britain have pledged to increase commitments to the AMF(L), and Belgium (among others) has pledged more commercial aircraft for use in crises.²⁶⁶

The United States is in a different category from the European countries regarding stationed forces. The time-space and advantage gained by European allies in the post CFE period does not facilitate U.S. reinforcement, for while there may be more warning time, more forces will have to be transported and the Atlantic SLOCs will be no less vulnerable. Furthermore, even the CFE imposed limits will still permit a potent U.S. combat force in Europe which, together with either a deployed or contingency nuclear capability, will leave the U.S. as a major deterrent power in Europe. European defense ministers recognize the special attributes of U.S. stationed forces, and have issued a statement calling for the continued U.S. military participation in NATO's military command structure.²⁶⁷

Less clear is the future of the Canadian contribution. Does Canada's insignificant contribution to the ranks of stationed forces (1.27% of its troops, 1.16% of its tanks) render it irrelevant and easily removed, or does its transatlantic location make its presence in Germany, like that of the U.S., an important part of the deterrent?

CANADA'S NATO COMMITMENT SINCE THE 1987 WHITE PAPER

In a December 1989 year end interview on Canadian television, Prime Minister Brian Mulroney stressed the importance of Canada's maintaining its troops in Europe. Withdrawing the troops "would be a fundamentally

destabilizing initiative given the convulsive political changes" in Eastern Europe.²⁶⁸ He continued, however, that the current developments in NATO "should not exclude the possibility of looking at those new realities."²⁶⁹

Critics of Canadian defense policy have pressured the government for a reduced commitment. Retired Canadian Admiral Robert Falls, former representative to NATO and current president of the think tank Arms Control Center, called for a restructuring of Canadian forces "in the face of the inevitability of a withdrawal of Canadian ground forces from Europe."²⁷⁰ Bernard Wood, director of the Canadian Institute for Peace and Security, opined that "The International climate now permits more effective influence for Canada (but) will also demand changes in the way we see and conduct ourselves in the world." Mr. Wood continued to call for "consideration of the withdrawal of some Canadian forces from Europe, and increased defense resourcing of domestic priorities, such as control of fisheries, pollution, drug interdiction, and greater support to UN peacekeeping initiatives."²⁷¹ Perhaps the most strident spokesman for Canadian withdrawal from Europe is retired Major General L. V. Johnson, ex-commandant of the National Defence College and a current leader of the New Democratic Party, who wrote that "It is hard to demonstrate that Canada has benefited from NATO," and continued that "the costs involve the foregone opportunity to maintain surveillance and control of national territory without subordination to the US."²⁷² John Martensen, editor of the Canadian Defence Quarterly, proposed an abandonment of the European role and consolidation in the defense of Iceland.²⁷³

This uncertainty of Canada's military role meant that force

developments fell short of General Manson's hopes and of the promise of the 1987 White Paper. The promised two-brigade Canadian mechanized division in Germany has been virtually emasculated by the Canadian government's refusal to procure modern main battle tanks for the combat units and adequate strategic transport for the reinforcing units. The division's strength has been reduced from 16,500 to 11-12,000.²⁷⁴ In addition, the Canadian government has revealed no plan for the fielding of a division base, the combat support or service support elements to make it a viable, cohesive fighting force.²⁷⁵ Without significant investment and modernization the contribution of this Canadian "demi-division" would be chiefly symbolic, its battlefield capability would be insignificant.

Recent articles in the Canadian press have also decried the under funding of Canadian peacekeeping contingents. Although peacekeeping is a stated objective in Canadian defense policy, inadequate funds are being allocated to it, both from the UN and internally within Canada.²⁷⁶ The military demands on peacekeeping forces grow in the face of an ever more sophisticated threat. Alex Morrison, director of the Canadian Institute for Strategic Studies, has cited requirements for upgraded electro-optical equipment, helicopters, light tactical vehicles, and tactical air transport (C-130 Hercules).²⁷⁷ These items are inherent in a force structure oriented around light infantry, but would be an additional expense if the Canadians continue an armored force development program.

It is hard to imagine a tactical justification to retain Canadian combat troops in Europe. The original reason, to defend West Germany from the Soviets in East Germany, is clearly out of date. In a unified Germany, with or without NATO's military structure, foreign troops may not be welcome, since they would clearly not be needed. In essence, after

all, they represent the vestiges of German defeat. Already some West Germans are protesting plans to expand the Canadian Forces air base at Lahr.²⁷⁸ Coincidentally, this action corresponds to the opinion of some Canadian analysts, notably Tariq Rauf of the Canadian Centre for Arms Control and Disarmament, that Canada's three CF-18 squadrons (just over 30 aircraft) should be withdrawn from Europe and returned to Canada.²⁷⁹

There are Canadians who discount the importance of these diminishing military capabilities. As the current CDS, General John de Chastelain, put it, "Numerically, our forces stationed in Europe are less significant than the political message of their being there." General de Chastelain continued that "[having Canadian troops in Europe] does work in our interest. It gets us seats that we would not otherwise be invited to."²⁸⁰

General de Chastelain's justification does not seem warranted under current circumstances. Article 2 of the North Atlantic Treaty, calling for "further development of peaceful and friendly international relations between NATO allies by strengthening their free institutions, by bringing about a better understanding of the principles upon which these institutions are founded, and by promoting conditions of stability and well being,"²⁸¹ has traditionally been cited by Canadian analysts as a justification for the presence of Canadian troops in Europe. Canadian policy has consistently held that its troops in Europe give it an influence in European developments it would not otherwise have.²⁸² Columnist Richard Gwyn calls Canadian troops in Europe "our club dues to the 35 member Conference on Security and Cooperation in Europe."²⁸³

In reality, however, although a unilateral withdrawal might be perceived as craven, it is difficult to imagine what political or defense

councils Canada would be asked to leave if its troops left Europe as part of a CFE agreement. To begin with, troop presence in Germany is not a prerequisite for NATO membership or for participation in NATO's military structure. Policy in NATO is made by three decision making bodies--the North Atlantic Council, the Defense Planning Committee, and the Military Committee.²⁸⁴ All member countries are fully represented on each of these committees (except for France which voluntarily opted out of the Defense Planning Committee and sends a military mission rather than its chief of staff to the Military Committee) regardless of their military participation. Even Iceland, with no military at all, is represented.²⁸⁵ Other forums, especially the Conference on Security and Cooperation in Europe (CSCE), may actually be more influential in the development of a stable political order in Europe. Bernard Wood, quoted earlier, believes that CSCE's role may be expanded because of the increased legitimacy it has acquired with Eastern European members.²⁸⁶ But troops in Germany is no ticket for a seat at the CSCE table, nor its subset council, the Conference on Confidence-and-Security-Building Measures and Disarmament in Europe (CDE).²⁸⁷

Just as significantly, however, the forums where Canada currently occupies a seat may not be those where the real decisions are being made anyway. As the Norwegians are learning, nations not members of the EC are finding that when they appear to present their views at NATO, each EC member "only nods around the table to the other EC countries and has it confirmed that the mutual opinion which they had earlier agreed upon stands firm."²⁸⁸ As recently as December 1989, a communiqué of NATO's foreign ministers called for direct EC relations with NATO, saying that "the process of European integration will be central to the future of

Europe," and that NATO must "recognize the growing role of the council of Europe (comprised of the EC heads of state) in the larger European perspective."²⁸⁹

Thus, the original concept of article 2 of the North Atlantic Treaty appears to have been stood on its head. Rather than a security alliance leading to greater economic and political integration, it seems that the economic alliance is the motive force to greater integration of political and security policy, to the exclusion of the non-EC members of NATO. Canada may be paying \$1 billion annually for a seat at the wrong table.

Within the Canadian polity, latest polls indicate a decline in support for military commitments in Europe. Although a recent opinion poll concluded that Canadians overwhelmingly support the concept of NATO (80 percent favorable response), very few Canadians think the country's most serious threats are military (5.5 percent of respondents), with greater concern expressed over environmental (65.5 percent) and economic perils (28.3 percent).²⁹⁰ A later poll indicated a 71 percent majority of Canadians were in favor of defense spending cuts.²⁹¹ These indications of public opinion have discouraged the government from spending the money necessary for a viable, effective military force in Europe.

In a post CFE Europe, it is difficult to see how the Canadian Brigade Group in Germany would serve any purpose. It costs Canadians \$1 billion per year, out of a \$9.5 (US) billion annual budget to maintain in their current state of obsolescence;²⁹² it would cost at least \$2 billion to modernize.²⁹³ It also diverts resources from defense requirements closer to home, such as Arctic security.²⁹⁴ Morale has been described as "shattered."²⁹⁵

These ideas have had their impact in Canadian politics. The Mulroney government pledges a continued Canadian troop presence in Germany, but the last Gallup poll registered that public support for that government had sunk to a mere 16 percent, and the trend is a decreasing level of support.²⁹⁶ If the next scheduled election (due in 1992) were held today, polls indicate that they would result in a Liberal victory.²⁹⁷ As of this writing, the leading Liberal candidate is Jean Cretien, winning big in party conventions in Alberta, Manitoba, and Quebec.²⁹⁸ In Gallup polls, Cretien led his rivals by 18 percent among Canadians as a whole, 41 percent among Liberals.²⁹⁹ Cretien has publicly called for Canada to remain in NATO but to pull its troops out of Europe.³⁰⁰ Other Liberal candidates are less committed to pulling Canadian troops out of Europe, but public support for continued troop presence in Europe, while still a majority at 55 percent, is at its lowest since 1968, and the trend is down.³⁰¹ The removal of Canadian troops from Germany is a real possibility, and trends suggest it will become more likely as the next election approaches. If Canada maintains a role in European defense, it will most likely be as a rapidly deployable force held in readiness to respond to a threat in Europe, perhaps on Norway, as was originally conceived by Defense Minister Erik Nielsen in 1985.³⁰²

THE LINGERING THREAT AND OPTIONS TO MEET IT

A responsible analysis of the security requirements for the United States or Canada for the 1990s must take into account that the successful conclusion of the current CFE negotiations will substantially reduce the threat of Soviet attack in Central Europe, but will not diminish the substantial capabilities of Soviet forces on the Kola Peninsula. Self

evidently, these forces pose an indirect threat to the whole of the Western Alliance, but as a direct threat they primarily confront four nations: Norway, because of location; and the UK, the U.S., and Canada, because of Soviet maritime and strategic nuclear capabilities. Until now Norway has borne a disproportionate share of the burden of confronting these forces, because in the event of hostilities the Norwegians would have to take the first blows with less than complete assurance that help would arrive from NATO. The time, it could be argued, is overdue for all parties concerned to assess that situation and make appropriate adjustments to current policy.

One also reads articles claiming that preparations for war are no longer needed. Why, then, worry about the balance between NATO and the Soviet Union on the north flank? These optimistic views assume that Gorbachev's peaceful policies will survive his departure, an assumption with no basis in fact. These analyses also ignore the relationship that exists between military power and peacetime diplomacy. In their day-to-day relations with the Soviets, and especially in times of crisis, the Scandinavian countries must take into account what would happen if things went to the extreme. As Joel Sokolsky wrote in 1981, they "are expected to recognize the Russian regional preponderance and, in time, to readjust their foreign policy calculations in consonance with the perceived vital interest of the Soviets. The consequence of this would be to detach Norway, along with the whole of Scandinavia, from the West. To some extent, this process is already underway."³⁰³

NORWEGIAN OPTIONS

Professor Sokolsky's concept of foreign policy calculations found resonance in a comment made by former Norwegian defense minister J. J. Holst in 1985: "The Norwegian calculus includes the traditional presumption that certain interested powers will defend Norway because they cannot afford to let her fall into hostile hands."³⁰⁴ Norway's experience as a NATO ally is cause for them to question who those interested powers will be.

From the beginning, Norwegians have overwhelmingly supported NATO membership,³⁰⁵ which was reiterated as recently as 23 February 1990 by the Norwegian Prime Minister, Jan Syse.³⁰⁶ Nonetheless, many Norwegians feel that they have valid grievances about the way they have been treated by the alliance. The harassment and threats Norway has endured from the Soviet Union have already been described, as has Norway's fear of being manipulated in an aggressive U.S. policy. But Norway has reason to complain about the Western European part of the alliance as well.

In choosing to reject EC membership, Norway isolated itself from the forum which is subsuming a greater share of the political and security functions originally envisioned for NATO. An analyst wrote in the 1970s that "In the long term, there was the danger that.....Norway would find its position in the Alliance's political activities undermined even if it remained unaffected as regards defense cooperation,"³⁰⁷ that "Norway's possibilities for exercising influence through political cooperation in NATO are shrinking and will continue to shrink,"³⁰⁸ and that "Norway has to make an effort to secure (sic) that the strategic thinking in the capitals of Western Europe emphasize that the defense of the Northern Flank is a part (emphasis in the original) of the whole of Western

Europe."³⁰⁹ If, as some have suggested, the European Community achieves a "political union," to include unity of defense policies, Norway may find itself even more isolated.³¹⁰

The credibility of the U.S. deterrent is also questioned in some Norwegian analytical circles. "The USA will, in the foreseeable future, continue to play the role as Norway's main security guarantor in the North. We must, however, realize that....Afghanistan, Iran, and other developments have reinforced the idea....that the responsibility for the defense of Western Europe [rests] on the shoulders of the Western Europeans themselves....present advantages for Norway deriving from her close ties with the USA may be reduced if the Americans have to concentrate a larger share of their military capacity on the areas around the Persian Gulf."³¹¹

Much ill will was caused by the Alliance's policies to deal with the petroleum embargo imposed during the 1973 Arab-Israeli war, which created a "bitter conflict" between Norway and both the U.S. and Western Europe.³¹² In Norwegian eyes, the demands of the U.S. government to regulate the sale of Norwegian petroleum was viewed as an infringement of sovereignty.³¹³ President Carter's pressure on the Norwegians to sell petroleum to Israel and President Reagan's attempts to "dictate policy" in the face of the Soviet/Western European natural gas deal were even more highly resented.³¹⁴

It is imaginable, then, that a Norwegian security analyst totting up costs and benefits associated with NATO membership might well compare the sum of Soviet threats and harassment; of an ever diminishing voice in Alliance councils; and of attempts at military, political, and economic

manipulation by parties not vitally interested in the security of Norway with the never adequate and consistently diminishing commitments of Allied help in the event of attack. For all Norway has contributed, the only land reinforcements exclusively committed by NATO are two artillery battalions, and even these commitments are qualified by national requirements. It would be most imprudent for NATO to ignore the possibility that for Norway the alliance has not been a particularly good deal. As early as 1979 an analyst wrote, "Faced with the Western inability to counteract Moscow's growing campaign of harassment and pressure, Norway may find that NATO membership yields diminishing returns and that the benefits of membership do not outweigh the risks."³¹⁵

It would be a mistake on NATO's part to take Norwegian membership for granted by assuming that Norway's obvious need for help in the event of attack leaves her no non-NATO options. If the Norwegians ever calculate that the U.S. Navy would defend the Norwegian Sea for its own interests, irrespective of Norwegian participation, they may then conclude that the most effective deterrent to a Soviet attack is an alliance with Sweden. Norway is already more integrated culturally and economically with Sweden than with Western Europe, and the two countries' political orientations are very similar.³¹⁶ Their security problems are also similar, especially the requirement for non-provocative policies when dealing with the Soviet Union.³¹⁷ Sweden is less likely to pressure the Norwegians into accepting foreign basing or nuclear weapons because of the danger of Soviet seizure of Finland.³¹⁸ The Swedish and Norwegian military structures are compatible for joint operations, and even at its peacetime strength the Swedish army is better positioned to reinforce Norway than anyone in NATO. Most important, however, the certainty that an attack on a neutral Norway

or Sweden will throw the Swedish air force into the hostile camp may be viewed as a far more valuable deterrent than vague, unrealistic promises of NATO reinforcement.

No one should labor under any illusions that a Norse-Swedish security alliance will reflect a shift in Swedish policy toward NATO. On the contrary, the Norwegians understand that Sweden's armed neutrality is a fundamental aspect of their policy and will continue. A recent analysis reaffirms that "No Swedes are interested in any alteration of the current official neutrality line."³¹⁹ The Swedish undersecretary for foreign affairs, Sverker Astrom, summed-up his country's policies thus: "In our view, guarantees furnished by the great powers would create some measure of dependence on these states. They might claim the right to keep an eye on Sweden's foreign policy and raise objections should they consider it conflicts with the terms of international guarantees."³²⁰ Since these words were written, Swedish hostility toward the U.S. has diminished and Swedish fears of the Soviet Union have increased.³²¹ Nevertheless, however, no sign of a drift toward NATO is apparent.

The recent assertiveness of independence movements in the Baltic republics could be an incentive for renewed interest in Norwegian/Swedish security cooperation. Independent Baltic republics would greatly diminish the Soviet naval presence in the Baltic Sea, which would remove a threat to Swedish interests. Sweden would also benefit from increased Baltic trade. If Norwegian and Swedish resources were combined, the two countries could offer the Baltic states the major materials they would lose if they were unable to trade with the Soviet Union: petroleum, steel, and timber.³²² Perhaps more importantly, Sweden would be able to export

jobs to the Baltics and pay Western-rate wages. Sweden's current potential for economic growth is hindered by a labor shortage, and already Sweden is hosting guest workers from the Baltic republic.³²³

In light of these facts, the Scandinavian response to events in the "Baltic Spring" of 1990 are interesting. Of the Western Allies, only Norway has clearly denounced Soviet intimidation of Lithuania, calling the Soviet Army's storming of the hospitals sheltering army deserters "brutal and unwise."³²⁴ Sweden's stance is less militant, Swedish Foreign Minister Sten Anderson saying the Soviet leadership is "behaving responsibly toward Lithuania."³²⁵ Nonetheless, Soviet troops activities have caused Sweden to put its military in a higher alert status³²⁶ and also to prepare to receive Lithuanian refugees.³²⁷

All these developments suggest that one unanticipated result of the military and political developments of the 1990s could be a realignment of Nordic security. Sweden's example may appear an attractive one for Denmark and Norway to follow, and a non-aligned Nordic orientation may be an attractive way for independent Baltic states (if there ever are any) to avoid having to choose between the Soviet Union and the Western Alliance.

It has been suggested that it would "not be unrealistic to expect a Danish referendum on NATO in the 1990s,"³²⁸ and the Norwegian Prime Minister Jan Syse recently announced that he was postponing indefinitely a decision to extend prepositioning of U.S. equipment in Norway. The Norwegian news said "Difficulties in obtaining broad political support for such an extension in view of recent developments in Eastern Europe was the background for the postponement. Before submitting the issue again, the government will carry out a new broad analysis of the national security situation..."³²⁹ This "new broad analysis" will likely include a detailed

debate on the costs and benefits associated with Norway's NATO membership.

None of this is to say that withdrawal from NATO would have no cost for Norway. The most reassuring solution to Norway's security problems would be the disarmament of Soviet elements on the Kola peninsula. Soviet policy has frequently called for the establishment of a nuclear weapons free zone (NWFZ) in the Arctic, most recently in October 1987, when Secretary Gorbachev proposed that he would be the "guarantor" of a NWFZ in Northern Europe, a proposal that was turned down because the Soviet nuclear force was excluded.³³⁰ From the Canadian point of view, there is a clear convergence of interests between Canada and Norway on the issue of Arctic disarmament. Like the Norwegians, the Canadians have thus far resisted Soviet pressure to conclude one-sided disarmament of the Arctic. As recently as October 1989, an External Affairs Department spokesperson insisted that arms negotiations on the Arctic must take place within the larger context of East-West disarmament talks.³³¹ Without Norway's participation in an allied disarmament effort, it is difficult to envision how East-West disarmament talks on the Arctic would proceed.

Finally, if Norway were to reject NATO, the trans-Atlantic nature of the alliance would be put at great risk, because many key decisions ultimately affecting the Atlantic SLOCs would then be made not in Brussels or Washington, but in Stockholm. With no security ties to NATO, there is no guarantee that these decisions would facilitate trans-Atlantic cooperation. Indeed, one key aspect of Soviet policy would be to ensure that such cooperation would not occur. This would be a first step toward an alliance cleavage of its most sensitive point, which would benefit only the Soviet Union.

In sum, when Norway considers its options, it would probably conclude that leaving NATO would have severe negative impact on the Alliance. They would also no doubt conclude, however, that the usual burdensharing arguments between North America and Europe can be turned around when the subject is the North Flank; now that U.S. and Canadian resources are not required in so massive amounts in the Central Region, the time has come to help the Norwegians, who for years have been holding the line against a threat that is more dangerous and more specifically directed against North America. How NATO responds to that challenge will likely determine whether Norway stays in or leaves.

WESTERN EUROPEAN OPTIONS

One way to influence Norway to reaffirm its NATO alignment would be an increase in the Western European commitment to help Norway defend itself. The AMF(L) is primarily composed of European units, and the NATO Composite Force contains a European contingent, although American and Canadian battalions are represented. In addition to the British and American fighter squadrons scheduled to reinforce Norway, Holland has announced that, due to the reduced Central European threat, one and possibly two of its F-16 squadrons (totalling 36 aircraft) will be dedicated to Norwegian defense.³³² It is certainly possible that additional Western European ground units will also be considered for Norwegian reinforcement.

Western European reinforcement to Norway would help to heal the rifts, already described, that some Norwegians feel isolate them from other alliance members, and the concept certainly accords with the notion of Europeans taking more responsibility for their own security. There

are, however, certain problems associated with the Western European options which may make them less attractive when more closely analyzed. The first of these problems revolves around the question of exactly who will take up the additional commitment to reinforce Norway. The Dutch reinforcement already mentioned will be little more than a token if, as some expect, the Netherlands decreases its defense budget upon the conclusion of CFE treaty.

The United Kingdom, already committed to Norwegian defense, has proposed a 1990-91 defense budget with a .6 percent real term decline, to be followed with 1.9 percent real term growth planned for the 1991-92 budget and 1.7% in 1992-93.³³³ These increases are intended to "reflect the government's resolve to maintain a strong defense and sustain the UK's responsibilities within the NATO alliance,"³³⁴ but as already has been seen, Norway views the UK's resolve to its Norwegian defense commitment with a somewhat jaundiced eye. Much of it depends on the continued upkeep of the Royal Navy, and in order for the British commitment to the Northern region to retain its credibility, Britain will have to admit that its current commitments spread the Royal Navy to thinly supporting activities worldwide. A credible commitment to Norway would require Royal Naval concentration in the Channel and the North and Norwegian Seas.³³⁵

Moreover, the growing unpopularity of the Thatcher government has already produced reports that the planned defense budget will be cut to avoid defeat in the 1992 elections. These cuts could include a one-third across-the-board cut in British troop strength, the elimination of the British Army of the Rhine, and a halt on fighter-jet development.³³⁶ Reports of this nature are unlikely to enhance Norwegian confidence in an

already questionable British commitment.

It could be argued that the Western European country best postured to take on an additional Norwegian defense commitment is a unified Germany. The West Germans already provide 71,000 men to northern security as a part of AFBALTAP, including a panzergrenadier division.³³⁷ If the Soviet threat in the Baltic has diminished and German military potential has increased, it might seem logical that German troops would be an ideal solution for Norwegian reinforcement. Before accepting that proposition, however, it would be wise to consider the political impact of German troop presence in Norway.

Perhaps because its location outside of Central Europe meant that Norway was not compelled to view its security as directly linked with that of West Germany, Norwegian resentment against the Germans lingered after West German soldiers were accepted by the other Western European World War II allies.³³⁸ With the formation of the AMF(L), however, which included German combat units and which was fielded to respond to threat on NATO's flanks, the Norwegians were presented with the need to allow German troops to participate in exercises in Norway. Norway agreed to German participation in an AMF(L) exercise called Arctic Express scheduled for February 1978.³³⁹ Once they learned of this agreement, however, the Soviets put pressure on Norway to renege. Deputy Soviet Foreign Minister Zemskov visited Norway and issued warnings about the presence of German combat units in Norway.³⁴⁰ In addition, Norway received an appeal from the President of Finland, who complained of Soviet pressure on his country.³⁴¹ On the eve of the West German deployment, the Norwegian Prime Minister announced that German troops would not participate in the exercise, saying that West German participation in NATO exercises in

Norway had reached an "appropriate level,"³⁴² limited to supply, medical, and aviation units. The Norwegian Aftenposten editorialized that "Norway is in fact accepting a claim that maneuvers of the war gave the Kremlin the right to be heard when it objects to West German presence in other parts of Europe."³⁴³

This policy was changed in March of 1990, when a reinforced West German Fallschirmjagerbattalion (Parachute Infantry Battalion) participated in AMF(L) exercise ARRAY ENCOUNTER in Norway.³⁴⁴ The Bundeswehr press release indicated that Norwegians accepted the Germans, but that World War II memories linger. A Norwegian officer was quoted as saying "the Germans are now our allies and friends,"³⁴⁵ but the same report goes on to describe Norwegian families telling German soldiers they could "forgive, but not forget."³⁴⁶ Another German press report described "only isolated voices against the participation of German combat troops in this exercise," and the local newspaper's publishing a picture of a Norwegian who had experienced the World War II occupation shaking a young German's hand.³⁴⁷ But the same report quotes a Norwegian lieutenant colonel with a more realistic appreciation for the Norwegian acceptance of German troops:

We have a 196 km border with the Soviet Union. Norwegians are brave, but a few kilometers beyond the border are the launch sites for Soviet short range missiles. And who else but Norwegians are these missiles aimed at? Two weeks ago Soviet soldiers exercised with these missiles.³⁴⁸

As of this writing, the author has come upon no Soviet commentary on the German troops in ARRAY ENCOUNTER. It is quite possible, however, that the events of February and March 1990 in the Soviet Union give them neither the opportunity nor the incentive to criticize NATO. Over the

long term, in a Soviet-NATO confrontation, it is certainly possible that German troops in Norway will increase tension.

Other factors which might argue against an expanded German role in Norwegian security are the degree to which the Bundeswehr is suited for such a role and the increased influence it might provide the Germans within the alliance. The law that brought the Bundeswehr into existence specified that it was to be a territorial defense force only and not used for foreign aggression.³⁴⁹ As a result, the German Field Army is designed to confront an armored Soviet threat. The German units in NATO contain 10 armored or mechanized infantry divisions, difficult to deploy, and only two light divisions: an airborne and a mountain division.³⁵⁰ The agreements associated with unification may impose upon the Germans a capability for rapid deployment from the Elbe to the Oder, but it remains to be seen whether this capability will make deployment to the north flank a feasible German option. Most likely, German deployment on this scale would require support^{SP} from the U.S. Military Airlift Command, who already provide strategic lift for the AMF(L).³⁵¹

European members of NATO might also question whether they really want Germans to develop the capabilities needed to defend both the north flank and the central region. It could be argued that in playing those two key roles, the unified Germany would come to dominate the European security community at the same time a unified Germany dominates the European economic community. This expanded influence and responsibility may not be in the interests of the other Europeans or the Germans. As far as the Norwegians are concerned, if it becomes apparent to them that their 40 years of supporting NATO have made them a German protectorate, the bitter memories associated with Germany because of both the occupation and the

cold war may encourage them to leave the alliance.

The final European option to be considered is the multinational force option, an expansion of the AMF(L) or NATO Composite Force concept. These forces are supposed to deter aggression by demonstrating allied solidarity. In other words, they deter not because of their combat capabilities but because they represent the risk of a general European war. As Major General Peter-Heinrich Carstens, current AMF(L) Commander, put it, "the number of flags will be more important than the number of tanks."³⁵²

The credibility of MG Carsten's deterrent is directly proportioned to the degree to which the countries represented in the AMF(L), or an expanded version of it, are ready, willing, and able to wage war for the defense of a peripheral ally. That an attack on Norway would involve the risk of a general European war is a calculation the Soviets would need no symbolic commitment to make; they can read the Atlantic Treaty as well as anyone else. The important calculations are to what degree would each NATO ally have the will and the means to oppose them. A Belgian battalion, for example, deployed as a part of the AMF(L) might be a cause for a declaration of war if it were attacked, but a declaration of war does not necessarily translate into a combat capability.

There may come a time when the risk of a general European war, if it could remain non-nuclear, would be acceptable to the Soviets. We know that twice in this century the risk of a general European war was no deterrent, and without a major commitment of North American troops or the presence of U.S. nuclear weapons, the deterrent of the 1990s may be inadequate, for a world war is a different magnitude of risk from a European war. For that

reason, the CAST Brigade at its worst was a more effective political deterrent than the AMF(L) or the NCF at their best, for it symbolized that NATO was not a European alliance or a tool of the United States, but a true transatlantic alliance in which each North American partner shared the will, if not the capability, to come to the aid of even the smallest and most isolated European ally. To the Norwegians, multinational forces are not credible reinforcements. Defense minister Per Ditlev Simonsen has described the NCF as "made up of many nationalities in a relatively small force. It's not an ideal force. If restructuring in Europe makes it possible to have a more uniform group, maybe it would be an improvement."³⁵³

No less important, because of the preponderance of the U.S. in NATO's naval commands, a European defense of Norway risks decoupling the defense of Norway from the defense of the Norwegian Sea. Here NATO finds itself in a conundrum - the defense of Norway depends on control of the Norwegian Sea, but control of the Norwegian Sea depends on the defense of Norway. To voluntarily separate the two would provide the Soviets with an exploitable fissure in the alliance. Similarly, a European defense of Norway would decouple the process of naval and strategic arms control from European defense. Without a significant strategic naval capability, the Europeans have no leverage in getting the Soviets to the table to discuss the limitation of arms in the Kola Peninsula.

NORTH AMERICAN OPTIONS

In his earlier cited speech to the National Press Club of 23 February 1990, Norwegian Prime Minister Jan Syse reiterated the fundamental reliance of Norway on the United States for its security.³⁵⁴ Without a

doubt, help from other European countries would be greatly appreciated, but the United States alone is the country in NATO with both the will and the means to deter a Soviet attack, to defend against such an attack should deterrence fail, and, most importantly, to influence the Soviet Union to reduce the huge force levels threatening Norway on the Kola Peninsula. In a Fall 1989 interview, former Norwegian Defense Minister J. J. Holst described the ultimate goal of Norwegian security policy as "reductions of forces, both air and ground, and subsequent multilateral reductions that will extend to the Kola Peninsula,"³⁵⁵ and continued to say "I feel that it would be very much to the advantage of the West if we could eliminate sea-launched nuclear-tipped and emphasize nuclear-tipped cruise missiles. I think we are much more vulnerable to such systems than the East because we have much more extended coastlines and we have cities and military targets very close to the coast."³⁵⁶

In Holst's eyes, the need to address security issues in Arctic waters is a clear convergence of issues among NATO's Arctic allies,"including the USA and Canada. If we succeed in developing a system for cooperating more closely, we might also be able to soften the edges of military confrontation in the north."³⁵⁷ A coordinated allied joint service approach on defense of the northern region would discourage the Soviets from trying to pry the north flank away from the rest of NATO and might ultimately prevent an attack on Norway.

The United States military contains a number of resources which could support the Norwegians if they were threatened by an attack. The Marine Expeditionary Brigade and tactical aviation squadrons have already been described. Because of the nuclear and perceived aggressive nature of

these forces, however, Norwegian concurrence on their deployment might be delayed to avoid provoking a Soviet attack. The U.S. Navy operating in the Norwegian Sea would discourage a Soviet attack with carrier aviation, naval gunfire, and sea launched cruise missiles, but in the waters off North Norway such U.S. forces might, again, be seen as provocative and would be operating in the one point on the globe where the Soviets might be capable of local naval superiority. Also, a U.S.-Soviet naval battle might be extremely difficult to keep non-nuclear, because the lack of a civilian population removes a natural restraint to the use of nuclear weapons on land.

In NATO's 27th Wehrkunde (defense service) Conference on security issues, 3-4 February 1990, western military leaders agreed to modify their traditional German-oriented approach to European security and devote more attention to the alliance's flanks, Norway, and Turkey.³⁵⁸ In the words of the SACEUR, Gen. John Galvin, "My post CFE goal is that we not only maintain the current portion of defense in the flanks, but that we actually try to improve it. The reason for that is not that there is a difference in the threat, but that we have, to a certain extent, had an emphasis in the center at the expense of the flanks. Ever since I've had anything to do with it, I've been working to correct it."³⁵⁹

The U.S. Army is responding to the SACEUR's change in emphasis by drafting a modernization blueprint for its infantry units to improve their mobility without compromising fire power.³⁶⁰ The new plan will examine ways to equip these units with lighter tanks, anti-aircraft weapons, helicopters, and artillery pieces, and is due to be complete prior to January 1991.³⁶¹ These ground force modernization plans are oriented around the Light Infantry Division, the most readily deployable to U.S.

Army formations. Developed in response to non-European contingencies these units were conceived by the army staff as completely deployable in 400-500 loads of a C-141 transport aircraft.³⁶² Not only are these units rapidly deployable, as has been demonstrated in operational deployments to Central America, but their formidable helicopter assets give them a tactical mobility which could be of decisive importance.

Other manifestations of the Army's new emphasis include cuts in funding of certain programs of the so-called Heavy Force Modernization plan, a new self-propelled howitzer known as the Advanced Field Artillery System and a military bulldozer known as the Counter Mobility Vehicle.³⁶³ In addition, the Armored Systems Modernization plan has been expanded in scope to include the search for a new, deployable light tank to replace the obsolete M551 Sheridan.³⁶⁴ Also under consideration are changes to the concepts of employment and tactics of the Army division. The brigade is being redesigned to be more capable of operating independent of its divisional headquarters, free of traditional resupply requirements.³⁶⁵

If successfully implemented, the more robust light infantry division would provide the U.S. Army a capability to respond to Norwegian contingencies in many ways superior to the Marine Expeditionary Brigade. It is already air-deployable, and if it were permitted to pre-position equipment in Norway, would be even more so. It carries with it no association with the Marine Corps' aggressive reputation, as seen by the Soviets, nor of an aggressive U.S. Navy strategy. It is also completely non-nuclear. Since one of the U.S. Light Infantry divisions, the 10th, is stationed at Ft. Drum, New York, it could train in terrain and climate similar to that in Norway, and could be a force capable of responding in a

truly effective way to a Norwegian contingency.

In the case of Canada, military modernization plans have been put on hold, and the government's only military response to the events in Europe has been to cap the defense budget. On 20 February 1990, Canadian Finance Minister Michael Wilson announced a cut of \$658 million from previously projected budgets, and pledged to limit growth to five percent for the next two years regardless of inflation.³⁶⁶ Assuming Canada's January 1990 inflation rate of 5.5 percent continues, this translates to a no real growth budget. Following last year's \$2.74 billion cut in the proposed budget, this essentially spells the end of the enhancements promised in the 1987 White Paper (the current proposed budget is about \$12 billion).³⁶⁷ These cuts will be followed by a defense policy review, probably to be completed in the summer of 1990, which will consider as a key question what will be done about the Canadian contribution to NATO.³⁶⁸

Fiscal constraints severely undermine the credibility of Canadian war plans described by Major General K. R. Foster, deputy commander of Canada's Mobile Command. According to M. G. Foster, once the force was alerted the battalion belonging to the AMF(L) would be deployed to Europe, most likely to Norway, and the headquarters and other elements of the 1st Canadian Division would be deployed to link up with the 4th Canadian Mechanized Brigade Group in Germany.³⁶⁹ The Airborne Regiment would respond to other contingencies.³⁷⁰ Their deployment would be followed by the activation of the three "readiness brigades," brigade groups composed of active and reserve units, designed to deploy after a 30-day mobilization period.³⁷¹ In the meantime, the rest of the defense establishment would train and prepare troops required for the continuation of the war.³⁷²

Funding constraints make this scenario unlikely. Adequate resources exist to deploy the battalion to Norway, where pre-positioned equipment awaits them. The deployment echelon of the 1st Canadian Division, as has already been related, exists only on paper, and the strategic lift capability required for timely deployment does not exist. As in the case of the CAST Brigade, this strategic lift shortfall means that Canada would have to deploy its forces to Europe well in advance of the outbreak of hostilities, which may be viewed by the government as an unacceptable provocation.³⁷³ Longer warning times in the central region would mitigate this problem, but nonetheless the Canadian brigades committed to Central Europe cannot be described as rapidly deployable forces.

Given Canada's fiscal commitments, a change in a light infantry structure has a number of features which would be attractive. Light infantry forces can be fielded more cheaply than armored or mechanized infantry units. Their inherent mobility and flexibility would provide the Canadian government a much greater range of employment options such as sovereignty and environmental objectives, sure to be a part of future missions for the Canadian Forces. And if these forces were designed specifically with regional operations in mind, they would be much more convergent with other broad Canadian strategic goals, in addition to maintaining their NATO reinforcement commitment. These advantages have resulted in a proposal within the Canadian Senate to convert the Brigade in Germany to a light infantry structure.³⁷⁴

Conversion of Canadian combat units into a light infantry structure would enhance Canada's capability to respond to contingencies all over Europe. Depending on where these forces were based, such forces may be

able to respond to a Norwegian contingency using only in-theater allied airlift. If they were based in Germany they could be quickly airlifted to Norway. Basing Canadian light infantry forces in Scotland has also been suggested,³⁷⁵ but that would involve the expense associated with new military bases and would only incrementally increase the unit's deployment capability. Still, however, if Canadian troops must leave Germany, Scotland may be an attractive option.

All things considered, however, a restructured Canadian combat force in the political and fiscal environment of the 1990s will probably be stationed in Canada, which raises the issue of transatlantic lift. Here differences must be recognized between North American forces going to the central region and those going to the north flank. Forces being deployed to the central region are still likely to be primarily heavy forces, armored and mechanized infantry divisions, and these forces must rely to a great degree on sea transport. The time required for transport and the shortfall in strategic sealift capabilities are somewhat offset by the increased warning times which are expected to result from current military and political developments in Europe.

On the north flank, however, to arrive in time to confront a Soviet threat to Norway forces must deploy by air. The CAST Brigade's reliance on NATO sealift was the key feature which made it unfeasible. Because of the resources available to the U.S. Military Airlift Command and the civilian aircraft of the U.S. Air Reserve Fleet, the NATO air transport situation is much more promising.³⁷⁶ Moreover, the quick turn around time of these assets combined with the tactical air transport capabilities normally associated with these types of deployments means that debarkation airfields can maintain a much more rapid throughput of incoming troops

than would be the case with seaports. As a result, not only can the troops be deployed into combat zones more quickly, but the transport aircraft can also be released for other missions more quickly. In general, the air transport system can absorb the requirement to deploy more troops than can the sea transport system, if in fact the deployable forces are configured so as to be air deployable. It would seem only prudent to design Canadian forces to exploit that capability.

Deployment of U.S. or Canadian troops to Norway would be considerably easier if the Norwegians were to reverse their no-basing policy and permit the forward echelons of NATO forces to establish bases in Norway.³⁷⁷ The evidence, however, suggests no alteration of that policy is likely. Norway has historically been aware that a reversal of the no-basing is likely to bring enormous Soviet pressure to bear, and might even result in a Soviet seizure of Finland.³⁷⁸ Further, the prepositioning experience gives the Norwegians good reason to think that they might have to take all the harassment of a reversal of the basing policy only to have the allies fail in execution, or that the U.S. will use Norwegian bases for purposes not in Norway's best interests. As former Defense Minister J. J. Holst put it, "Such bases would imply direct Norwegian involvement in strategic dispositions over which Norway would have little influence,"³⁷⁹ adding that Norway would become a "hostage of American strategic interests."³⁸⁰ To Holst Norway's interests are best served if its allies are "within reach, but at arm's length."³⁸¹

So if there is to be an enhanced North American commitment to Norwegian defense, it will require a restructuring and reorientation of Canadian land forces, an enhancement in the capabilities of the U.S.

Army's light infantry divisions, a integrated Canadian/American deployment plan depending primarily on U.S. strategic airlift, and close coordination with naval forces operating in the North Atlantic Ocean and the North and Norwegian Seas and European forces implementing their own Norwegian reinforcement plans. For Canada, such a commitment would not be a new one - the equipment prepositioned for one Canadian battalion is still in North Norway and could be expanded for two more battalions. For the U.S. Army, it would be a new commitment, but one well suited for the deployability and combat capabilities the light infantry division was designed to provide.

One final word on North American options is in order. A renewed effort to defend Norway is unlikely to garner enthusiastic support in either Canada or Norway if it is perceived as another open-ended policy of confrontation and nothing more. The long term security interests of all three of NATO's Arctic nations, Norway, Canada, and the U.S., will best be served by a reduction of arms by both sides in that region to the lowest level consistent with stability. The arms control situation is more complicated on the north flank than in the central region, because naval forces, ground forces, air forces, and strategic nuclear forces are intricately bound up in a multi-dimensional symbiosis. In addition to demonstrating their commitment to Norway's defense, the NATO countries must develop arms control strategies that encompass this relationship. As an example, a proposal to control the numbers of Soviet ballistic missile submarines is more likely to be favorably received if it is accompanied by proposals to limit the numbers or operating ranges of U.S. attack submarines. In turn, when the Soviet strategic missile fleet begins to be reduced, the ground and air forces which defend them, and threaten Norway,

can be negotiated for reductions. Again quoting former Defense Minister Holst, "I feel that the West Europeans particularly need the U.S. leadership at the negotiating table."³⁸² Current Defense Minister Simonsen has put it "It seems to me that in CFE-2 we would have to look at reductions in the Soviet Union itself. Therefore, it could be that our hopes for real reductions in areas closer to Norway lie in "CFE-2."³⁸³ Or as Prime Minister Jan Syse has put it, negotiations should "conclude agreements at Vienna to end Soviet conventional superiority in Europe, not only from the Atlantic to the Ureals, but also from the Barents Sea to the Mediterranean."³⁸⁴ Allied solidarity at this time and in this area would go a long way toward reducing the risks thus far untouched by the CFE process.

While forecasting the impact that recent events will have in the 1990s and beyond is not without uncertainty, the following insights suggest themselves apropos of this study:

- Norwegian security policies are unlikely to change appreciably in the near term.
- None of the arms control agreements being negotiated will result in meaningful reductions in Soviet strength in the Kola Peninsula. In fact, technological developments indicate the Kola-based forces will be an even greater factor in Soviet security, thereby increasing the danger for Norway.
- CFE troop reductions will lead to greater requirements for light, highly mobile forces, structured for operational and strategic level deployments.
- Resources devoted to U.S. and Canadian defense will be reduced.

- The new structure of Central Europe will pose risks and uncertainties which could increase the danger of regional conflict and superpower miscalculation.

- A combined, robust North American contribution to NATO's plans to defend the north flank will add great credibility to the deterrent and will exert considerable influence in efforts at Arctic arms control.

SECTION V

CANADIAN AND AMERICAN RESPONSES TO NORTH FLANK SECURITY ISSUES

ATTITUDES AND OBLIGATIONS

In the preface of this study, its purpose was described as the study of ways in which the U.S. and other NATO allies can urge Canada to abandon its West German commitment and redirect its efforts to Norway where, with improved airlift and prepositioned equipment, it could make a much more effective contribution to NATO's deterrent posture. Thus far this study has traced the evolution of Norwegian security determinants and of allied policies as they relate to the North Flank, described the ways in which these determinants and policies are changing and the likely ways they will continue to change in the 1990s, and surveyed the options available to the actors concerned. This section of the study will explore the ways in which Canadian policy might be influenced in favor of a renewed North Flank security orientation.

At the outset, it might be wise to exclude what will not work, and chief among those will be any solution which is perceived by the Canadians as an American attempt to direct them to perform an isolated, militarily futile mission in which neither they nor the U.S. has any confidence or is willing to devote adequate resources. Canadian memories of World War II include two tragic episodes of this type, Dieppe and Hong Kong. The latter is particularly relevant to the current situation in Norway. In the summer of 1941 the Canadian government provided the British two infantry battalions to reinforce the Hong Kong garrison, an unrealistically optimistic view of the contribution two battalions could make in defending against a deliberate Japanese attack, and a reversal of

previous Canadian policy to avoid military involvement in Asia.³⁸⁵ On 8 December 1941 the Japanese attacked, and on Christmas Day the remnants of the Hong Kong garrison, to include the Canadians, were compelled to surrender and endure the rest of the war in Japanese captivity.³⁸⁶

The Canadian Forces' opinion of the viability of the CAST commitment to Norway is revealed by their pejorative nicknames for it, "Canada's next Hong Kong," or "Hong Kong in the snow."³⁸⁷ A proposal which smacks of Canada's troops being used for a hopeless mission, in which Canada feels neither confidence or true national interest, is unlikely to prevail in Ottawa. If Canada is to contribute more to Norwegian defense, it will have to be due to a Canadian decision, made in accordance with a Canadian analysis of what Canada's alliance obligations are and what vital interests Canada needs to protect.

Article 5 of the North Atlantic Treaty obliges the signatories to regard "an armed attack against one or more of them in Europe or North America" as an "attack against all and consequently they agree that, if such an armed attack occurs, each of them....will assist the Party or Parties so attacked by taking forthwith, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area."³⁸⁸ In practice, however, although North America is a NATO area, North American defense is treated separately from European defense, a practice former Canadian Ambassador to NATO John Halstead calls "an anomaly, especially under today's conditions, when there is an increasingly close strategic link among the Arctic zone of North America, the northern approaches of the Eurasian land mass, and the ocean area

between them."³⁸⁹ The loss of Norway would permit the Soviet Northern Fleet unimpeded access to the Arctic and Atlantic, which would invalidate Canadian claims to Arctic sovereignty, U.S. claims to naval superiority in the Atlantic, and faith in the alliance as capable of providing security to all its members.

Furthermore, the early loss of Norway would prohibit Canadian or American reinforcement and isolate North American elements located there. Under those conditions, the increased warning time, upon which so many current optimistic assessments are based, would provide no advantage. The Soviets could interdict transatlantic SLOCs for an indefinite period of time. For that reason, estimates published in the mid-1980s already predicted that "if war were to occur, the prospect that northern Europe would be involved in the early stages - even before the central front - continues to increase."³⁹⁰ It is in North America's interest to defend Norway to prevent being isolated from Europe.

In the area of arms control, a lack of solidarity among those NATO countries with direct interests in the northern region will provide the Soviets with a distinct advantage in their attempts to isolate them diplomatically in order to extract concessions from one at the expense of the others. As was amply demonstrated in the central region, the greater the manifest demonstrations of solidarity, the more palpable will be the Soviet concessions to arms control.

Could the United States provide for enhanced northern security without Canadian assistance? Perhaps, but a great deal would be lost. Canada's participation was always symbolic of a true North American commitment, and Canadian knowledge of and experience in the region remains invaluable. In Ambassador Halstead's words,

The CAST commitment to the northern flank fills an important alliance requirement that cannot be readily replaced. Canada is better suited to this task than any other NATO member because of political affinities and similarities of climate and terrain. Therefore, Canada's contribution here has a far higher profile than its contribution on the central front.³⁹¹

By the same token, however, it would be unfair of the other alliance members, in particular the United States, to expect the Canadians to assume this vital role in isolation. In an excellent critique of exercise BRAVE LION, Canadian Forces Lieutenant Colonel G. D. Hunt reminds us that the CAST Brigade "was not [his emphasis] a rapid deployment force and Canada has not the means to make it one,"³⁹² and continues to assert that "obviously, action to reduce the difficulties inherent in the political and military limitations [of the CAST Brigade's capabilities] can not be regarded as a Canadian responsibility alone."³⁹³

It would seem, then, that the most promising ways to influence Canada to revive its north flank commitment will be through appeals which come from the alliance, rather than unilaterally from Washington. A case must be made that a Canadian effort in this area will be a meaningful contribution at a cost Canadians can afford and are willing to pay. Contributions to the effort made by other allies, and especially the United States, should be clearly enumerated to avoid any Canadian feeling of isolation, and to develop the confidence required to ensure the effort succeeds. If a case can be made for economic benefit or increased prestige within the alliance, the ability to influence Canada might also be increased, although those considerations would probably be inadequate per se if Canada did not view the change in mission as in its own interests. Finally, changes of favorable consideration on the part of all countries will diminish if the reorientation of strategy is viewed as

another open-ended period of confrontation. The INF treaty and CFE process have raised expectations for the success of arms control negotiations, and all parties involved would view a renewed emphasis on the north flank in the best light if it were to appear that allied solidarity here will further the arms control process.

WHAT IS NEEDED AND HOW MUCH IS ENOUGH

Once the decisions made that a renewed commitment of Canadian Forces to the north flank is made, analyses must be done to determine the types and quantities of forces will best accomplish the mission. Here the alliance is going to have to make up for time lost, for the extensive analyses already existing in the central region were done at the expense of a true examination of the north flank's requirements. The U.S. Operations Research/Systems Analysis (ORSA) community is probably best resourced to begin work on this problem, and it is their work that offers the most promise for identifying and quantifying the military requirements.

In a 1988 article, Lt.Gen. B. C. Hosmer, USAF, then the President of the U.S. National Defense University, highlighted the necessity of ORSA technique in the development of modern military concepts. The only person, Lt.Gen. Hosmer asserts, with the theater-wide scope to develop such concepts is the theater commander himself; if he delegates the task to subordinates, the result will be necessarily skewed by their geographic or functional perspectives.³⁹⁴ Clearly, however, the demands on the theater commander preclude devoting the time and staffing necessary to develop and evaluate alternative operational concepts without the aid of analytical tools. Moreover, even if time and staffing were available in

abundance, the impact of technology and our collective limited experience in joint warfare campaigning may limit the degree to which theater commanders and their staffs are able to develop valid operational concepts.³⁹⁵

Lt.Gen. Hosmer suggests that the theater commander needs a tool which will help him quickly evaluate or compare alternative courses of action,³⁹⁶ and computer simulations appear to be the most practical solution to those requirements. These simulations must provide a prompt analysis based on carefully structured value assessments, a concept which must transcend the conventional loss exchange ratio and address the real measures of effectiveness of the commander's mission.³⁹⁷ In the case of the north flank, those measures might best be stated as whether Norway's territorial integrity is maintained, whether or to what degree the Soviets are able to protect and enhance the operations of their forces in the Kola Peninsula, whether or to what degree Allied Command Atlantic is able to prohibit the Soviet Northern Fleet's freedom of action, and whether NATO's transatlantic SLOCs operate without impedance. As Lt.Gen. Hosmer wisely counsels, these computer simulations are not "crystal balls that predict the future, but simply extensions of the commander's mind - helping him think through the problem."³⁹⁸

Simulations of military operations on the north flank must replicate the most complex type of wartime environment. The U.S. Army has been involved in computer-simulation analysis of a war in the central region for a number of years, and naval simulations are also well established. On the north flank, however, the salient factors of both elements are present in equal proportions, and any tool to evaluate alternatives in this region must provide analysis in both environment and clearly be

responsive to the impact each has on the other. As described by another commentator of military analysis, Lt.Gen. (ret) Philip D. Shutler, USMC, the northern region is a "littoral" theater, which is neither truly continental or maritime but which requires balanced action and synchronization between both regimes.³⁹⁹ Lt. Gen. Shutler offers his opinions that littoral theaters are not as well documented as continental or maritime theaters, but that they are steadily growing in importance.⁴⁰⁰ Analytical tools for their study are required now.

Although this study has to a degree been constructed on the assumption that deployability and maneuverability requirements dictate a lighter force for Norway than would be required in the central region, Lt.Gen. Shutler's article suggests a number of innovative measures which could greatly enhance the effectiveness of a light force deployed in Norway. Among those innovations are the concepts of "sea-skimming missiles" fired from the land in lieu of coastal artillery to destroy naval and amphibious forces offshore so that the land forces would have to fight only the remnants.⁴⁰¹ Also, the use of helicopters may be decisive, not just for the traditional uses of reconnaissance and troop transport, but also to facilitate the rapid concentration of artillery to destroy Soviet forces massed for attack on the Norwegian border.⁴⁰² Provided adequate air defense, such artillery could be extremely effective if employed against threats like the June 1968 Soviet deployment, if such a deployment were to culminate in an actual attack.

RESTRUCTURING THE GROUND FORCES

With or without a Norwegian commitment, indications exist suggesting that Canada will restructure its land combat element into a lighter force.⁴⁰³ It would certainly be prudent for Canada and the United States to share the insights that went into the development of the U.S. Army's Light Infantry Divisions and which will be developed in the ongoing studies oriented on providing these divisions with greater firepower for European type scenarios. With fewer personnel and items of heavy equipment, they represent smaller long term investments in manpower and capital expenditure, yet they could provide an enhanced capability to assert the military influence of both countries. (See Chart 8.) If Canadian units were converted into such a structure and habitually teamed up with light U.S. units, the training opportunities and combat potential of both could be enhanced.

Two of the U.S. light infantry divisions, the 6th and the 10th divisions, are located close to Canada, in Alaska and Northern New York respectively.⁴⁰⁴ the opportunities for mutual training benefits are obvious. Canadian units training with New York or Alaska based units could provide U.S. forces with valuable insights on effective operations in cold weather, and could also increase effectiveness and interoperability. In return, Canada's forces could learn important lessons in deployability from their U.S. counterparts.

Another feature of these two U.S. divisions which could be attractive to Canadian Forces is their relationship with the U.S. Army's reserve components. Both the 6th and 10th divisions consist of two active brigades "rounded out" by brigades coming from the national guard, or reserve, brigades which must maintain a readiness standard facilitating

CHART 8

Prototype Light Infantry Division Organization and the Structure of the 10th Mountain Division, Ft. Drum, N.Y.

<u>Prototype</u>	<u>10th Mountain Division Units</u>	
	<u>Active</u>	<u>Reserve or NG</u>
1 Division HQ	1	
3 Brigade HQs	2	1
9 Infantry Battalions	6	3
1 Division Artillery HQ	1	
4 Artillery Battalions	3	1
1 Division Aviation HQ	1	
3 Helicopter Battalions	3	
1 Division Support Command HQ	1	
4 Support Battalions	4	
1 Engineer Battalion	1	
1 Signal Battalion	1	
1 Air Defense Artillery Battalion	not activated	
1 Military Intelligence Battalion	not activated	

Source: "Divisions of the US Army" (Arlington, VA: Association of the US Army Poster).

deployment and combat operations with their active duty counterparts. The U.S. Army's lessons learned in these areas would help the Canadians with their stated objective of revitalizing their reserve forces.⁴⁰⁵ Interestingly, some of the national guard units with contact with the Alaska based division are battalions of the Alaska scouts, made up of native Alaskans who patrol the American Arctic. The American experience with these troops might provide the Canadians with insights into the employment of native forces into their reserves, which could in turn provide security and surveillance for key facilities in the Canadian Arctic.⁴⁰⁶

Even without a commitment to Norway, it is possible to conceive of mutual benefits deriving from a bilateral relationship among Northern based light infantry units. Although the ground defense of North America has not been a high priority in either country, the threat nonetheless exists of airborne, amphibious, or special operations actions against key installations associated with NORAD and with the Canadian-American industrial infrastructure, e.g., oil pipelines or chokepoints along the St. Lawrence Seaway. Close bilateral relations at the tactical level, combined with Canadian-American training and exercises, would greatly enhance the North American ability to react to such threats.

Another set of benefits which could accrue to Canada from a bilateral U.S.-Canadian effort to restructure the two nations' ground forces are incentives to Canada's defense industry. As is outlined on Chart 9, the export defense market for Canadian manufactured products is 51 percent larger than the domestic market, and defense related products account for 98 percent of all Canadian industrial exports. Looking at three key areas associated with ground force restructuring, aircraft and parts comprise 37

CHART 9

Total Defense Demand of Canadian Industries
FY 1984/85

(\$ Million)

Defense Industries	Domestic	Export	Total
Aircraft & Parts	585.3	688.4	1273.7
Motor Vehicles	29.9	317.0	346.9
Shipbuilding & Repair	406.4	90.4	496.8
Communication Equipment	106.5	616.9	723.4
Chemical Products	94.2	137.6	231.8
	<hr/>	<hr/>	<hr/>
Defense Totals	1222.3	1850.3	3072.6
Other Industrial	2019.3	29.6	2048.9
	<hr/>	<hr/>	<hr/>
Total	3241.6	1879.9	5121.5

Source: Government of Canada, Department of National Defense, Financial Information System, FY 1984/85 Reports.

percent of defense exports, motor vehicles 17 percent and communications equipment 33 percent. In the motor vehicle field especially, the export market comprises over 90 percent of all defense production, and without those exports that sector of Canadian manufacturing would not survive.

Perhaps the most important major item of Canadian produced equipment involved in the U.S. Army's light infantry modernization is the 8 wheeled armored car built by General Motors Canada known as the Light Armored Vehicle (LAV 25).⁴⁰⁷ The LAV was originally the subject of a 1984 U.S. Army/USMC program, which the Army left because of doubts that the LAV's 15 ton chassis would suit the Army's requirements of mounting a full-caliber tank gun.⁴⁰⁸ The Army has yet to develop an alternative, however, and the Marines' success with the LAV armed with a 25 mm gun has renewed interest. The Army's 82d Airborne Division leased 16 of the USMC's LAVs for a two-year evaluation.⁴⁰⁹ At this writing, these LAVs are not being considered as replacements for the 82d's M551 Sheridan tanks, but these tanks' obsolescence and high maintenance costs may enhance the LAV's attractiveness, especially if heavier gun systems are developed.⁴¹⁰

The LAVs leased by the Army are scheduled to undergo testing at the U.S. Army's Armor School at Ft. Knox, Kentucky.⁴¹¹ If the LAV chassis will support the armament required for a light tank, it would certainly upgrade the fire power available to the light divisions with no real loss of deployability (see chart 10). The LAV illustrates clearly the degree to which the Canadian defense industry depends upon exports. The Canadian Forces use just over 450 vehicles of the light armored wheeled vehicle class (195 Cougar, and 269 Grizzly).⁴¹² The U.S. Marine Corps currently operates more than 800 LAVs,⁴¹³ and the original procurement for the Army

CHART 10

Tank Deployability

<u>Main Battle Tanks</u>	<u>Unloaded Weight (Metric Tons)</u>	<u>Armament (Main Gun, in mm)</u>
M-1	51.5	105
M-1 A1	54	120
M-60 A3	48.6	105
Leopard 1	38.7	105
Leopard 2	40.4	120
Challenger	66	120
<u>Light Tanks</u>		
M-551 Sheridan	13.6	152 (low velocity)
Stingray (Cadillac Gage)	18.4	105
Rapid Deployment Force Light Tank	11.8	76
LAV 25	11.1	25
LAV w/105 mm gun	12.5 (est.)	105 (test)

Source: Jane's Armored and Artillery (Surrey, Jane's Information Group, 1989)

programmed for fiscal year 84 was 680.⁴¹⁴ Pentagon sources envision a future requirement for as many as 400 LAVs in the U.S. Army,⁴¹⁵ and the vehicles versatility may create even larger demand. An expanded market of that size compares very favorably with other market opportunities for the LAV. Recently, for example, the Canadian Forces contracted to buy 199 LAVs for the Canadian militia,⁴¹⁶ and a deal is being negotiated with the Australian government for 100.⁴¹⁷

The mechanisms required to facilitate the Canadian defense industry's access to the U.S. market are already in place. In the late 1950s, Ottawa and Washington concluded the Defense Production Sharing Agreement (DPSA) and subsequent agreements intended to establish, to the degree possible, free trade between the two countries in defense materials.⁴¹⁸ From the beginning, the U.S. view of the DPSA has been primarily strategic rather than economic. The main American security goal relating to Canada was to keep the Canadians interested in North American defense. If providing trading concessions helped to further that goal, the results have been considered worth the price.⁴¹⁹ Of course, the U.S. benefits as well in that certain Canadian manufactured products are of such high quality and competitive costs as to provide attractive alternatives for some requirements.⁴²⁰

The DPSA has been, in the main, a successful agreement. Since its conclusion, the U.S. has spent an average of \$170 million annually in Canada, as compared to \$35 million in the years preceding the agreement.⁴²¹ On the negative side, however, a lack of knowledge of Canadian capabilities and the best ways to deal with the U.S. procurement system, combined with certain protectionist tendencies in the U.S., have kept the DPSA from realizing its full potential, either strategic or

economic.⁴²² Still, however, the potential for growth is impressive. According to a Canadian Department of External Affairs report to the House of Commons in 1985, "while 30 to 40 percent of the U.S. procurement dollar is open to Canadian industry, Canada now receives only .64 percent. There is a big market for our industry there."⁴²³ A bilateral US-Canadian program to develop more robust light infantry structures offers obvious opportunities for Canadian manufacturers, the LAV being one known item of interest. A favorable attitude toward Canadian procurement in this area could be a minor economic concession on the U.S. side which would have disproportionate benefits on the Canadian side, and which would keep Canada's interest level high to the benefit of North American and North Atlantic Alliance security.

Of course, the restructuring of Canadian Forces into a more deployable organization provides no increased capability without the means to deploy them, and the north flank contingency demands the type of rapid deployment capability provided only by airlift. The only NATO country with a significant transcontinental airlift capability is the United States, specifically the strategic assets available to the Military Airlift Command.

To support a general war in Europe, the U.S. has identified an airlift requirement of 66 million ton miles per day. Today's U.S. Air Force can provide 45.4 million ton miles per day,⁴²⁴ but the U.S. Air Force C-17 strategic airlifter program, if fully implemented, will add 210 aircraft to MAC's inventory, which, in conjunction with planned enhancements to other strategic mobility problems, will virtually eliminate the strategic airlift shortfall.⁴²⁵ The C-17's capability to

land on short tactical runways (3000 x 90 feet), heretofore restricted to the C-130,⁴²⁶ would greatly enhance the alliance's capability to reinforce Norway quickly, in the forward areas where reinforcement would be best postured to deter a Soviet attack.

The total airlift requirement for all the 1989 active U.S. Army divisions is about 680,000 tons, ⁴²⁷ (see chart 11). A Canadian light infantry division, factored into the U.S. time phased troop deployment plans, would increase that requirement by 13,500 tons, or only 2 percent,⁴²⁸ even without the assistance of Canadian airlift.

It could at this point be asked why the United States or NATO should favorably consider an increase, even as small as two percent, to its already over-burdened airlift capability. The answer is to protect its even more over-burdened and vulnerable sealift capability. The most recent study conducted by the U.S. Commission on Merchant Marine and Defense concluded that a total of 650 modern cargo ships is required to meet the minimum U.S. wartime requirements and keep the U.S. economy in operation.⁴²⁹ By the year 2000, the total projected shortfall is 140 ships and 12,000 trained seamen.⁴³⁰ Clearly, actions taken to inhibit the ability of the Soviet Navy to sink U.S. ships and kill U.S. merchant seamen will help protect the precious and fragile means necessary for North American strategic reinforcement.

For these reasons, the commander-in-chief of the U.S. Transportation Command⁴³¹ and the chief-of-staff of the U.S. Army⁴³² have strongly endorsed the C-17 program. Unfortunately for the cause of deployability, however, U.S. Secretary of Defense Richard Cheney has proposed to cut the C-17 procurement program from 210 to 120.⁴³³ Expressions of support both from NATO and from Canada, whose strategic capabilities would be greatly

CHART 11

1989 Airlift Requirements for U.S. Army Contingency Divisions

<u>Type of Division</u>	<u>Number</u>	<u>Weight/Div. (tons)</u>	<u>Total Weight (tons)</u>
Airborne	1	22,783	22,783
Air Assault	1	30,215	30,215
Light Infantry	2	13,534	27,068
Motorized	1	43,864	43,864
Mechanized	4	93,373	373,494
Armored	2	90,216	180,434
	<hr/>	<hr/>	<hr/>
	11		677,854

Benjamin F. Schenmer, "Airlift, Sealift in Short Supply at Very Time Need Grows Fastest," p. 306.

diminished without a transatlantic deployment capability, could enhance the C-17's viability in a budget-cutting U.S. Congress. (See Chart 12.)

The airlift requirement for a Canadian deployment in Norway could be reduced considerably if more equipment were prepositioned in Norway. A Canadian battalion's equipment is already stocked in Norway, a vestige of the original CAST commitment retained for the use of the battalion committed to the NCF or the AMF(L), and the Norwegian defense minister intends for that equipment to remain.⁴³⁴ Canada has shown no recent interest in expanding its stocks of prepositioned equipment, but if its commitment to Germany was significantly reduced, more prestocking may become an affordable option. In addition to enhanced deployability, more prestocked equipment would enlarge the domestic Canadian defense market and provide equipment left behind by deployed contingency units for the use of follow-on units required to mobilize and deploy at a later date.

Another option which would reduce the deployability requirement would be forward basing of the Norwegian reinforcement units, either in Germany or in Britain. The former has the advantage of using existing facilities, requiring no new construction, but with CFE and the political environment in a unified Germany it may not be an option. The latter would require establishing a new overseas base for Canadian Forces, and as a result is unlikely to be politically viable in Canada. It would seem that for Canada to retain any combat capability in Europe, that capability must be designed around a structure and an allied plan for deployment from Canada.

Similar to the DPSA, a mechanism exists to coordinate U.S. and Canadian initiatives to restructure and plan the deployment of North American forces, the Permanent Joint Board on Defense, or PJBD. The PJBD was established in August 1940 at a meeting between U.S. President

CHART 12

U.S. Canadian Airlift

United States

Airplane	Number	Max Payload			Total Payload
		Metric Tons	MBT	LAVs	
C-5	97	118.3	2	8	11,475.1
C-17	210 (120)*	75.7	1	4	15,897 (9,084)*
C-141	249	41.2	0	2	10,258.8
C-130**	534	19.3	0	1	10,306.2
					<hr/>
					47,937.1 (41,124.1)*

Canada

CC-137	5	39.5	0	2	197.5
CC-130**	27	19.3	0	1	521.1
					<hr/>
					718.6

Total - North American 48,655.7
(41,842.7)*

Percent Canadian 1.5
(1.7)*

Percent American 98.5
(98.3)*

Compiled from Jane's All The World's Aircraft (Surrey: Jane's Information Group, various years).

* Figures with reduced C-17 procurement.

**Although the C-130 (max range -2,356 miles) is not normally classed as a strategic transport, it could transport tactical loads from Nova Scotia through Iceland to Norway, and is therefore included.

Franklin D. Roosevelt and Canadian Prime Minister McKenzie King.⁴³⁵ The PJBD was originally established to coordinate the defense against an Axis attack.⁴³⁶ When the perceived threat of an attack on North America declined, the work of the PJBD shifted its emphasis to the management of defense production and infrastructure to facilitate North American participation in support of the Allied efforts to defeat the Axis.⁴³⁷ The five years immediately following the war were a period of uncertainty for the PJBD, but beginning in 1950 officials in the USAF and the RCAF began to appreciate the need for coordinated air defense of North America.⁴³⁸ The board's recommendations on North American air defense questions laid the foundations for the subsequent establishment of the North American Air Defense (NORAD) Command.⁴³⁹ The PJBD's influence on Canadian-American defense cooperation has declined for a number of reasons since the mid-1950s,⁴⁴⁰ but the board's vaguely stated roles and purposes give it the flexibility to take on the types of coordination required by a renewed interest in the north flank. Even in decline, the Board has been staffed with men of quality, and its potential for enhanced coordination is great.⁴⁴¹

Since 1946, the Military Cooperation Committee (MCC) of the PJBD has conducted the maritime planning associated with the Canada-U.S. Basic Security Plan.⁴⁴² Because the Soviet forces on the Kola Peninsula constitute both a threat to Norway and to North American freedom of operation in the Atlantic, it is perhaps logical that the Norwegian reinforcement question should be referred to the MCC in order to coordinate more effectively both ground, air, and naval measures and appropriate U.S.-Canadian responses. The first step toward providing adequate security on NATO's north flank might well be to consider Norway

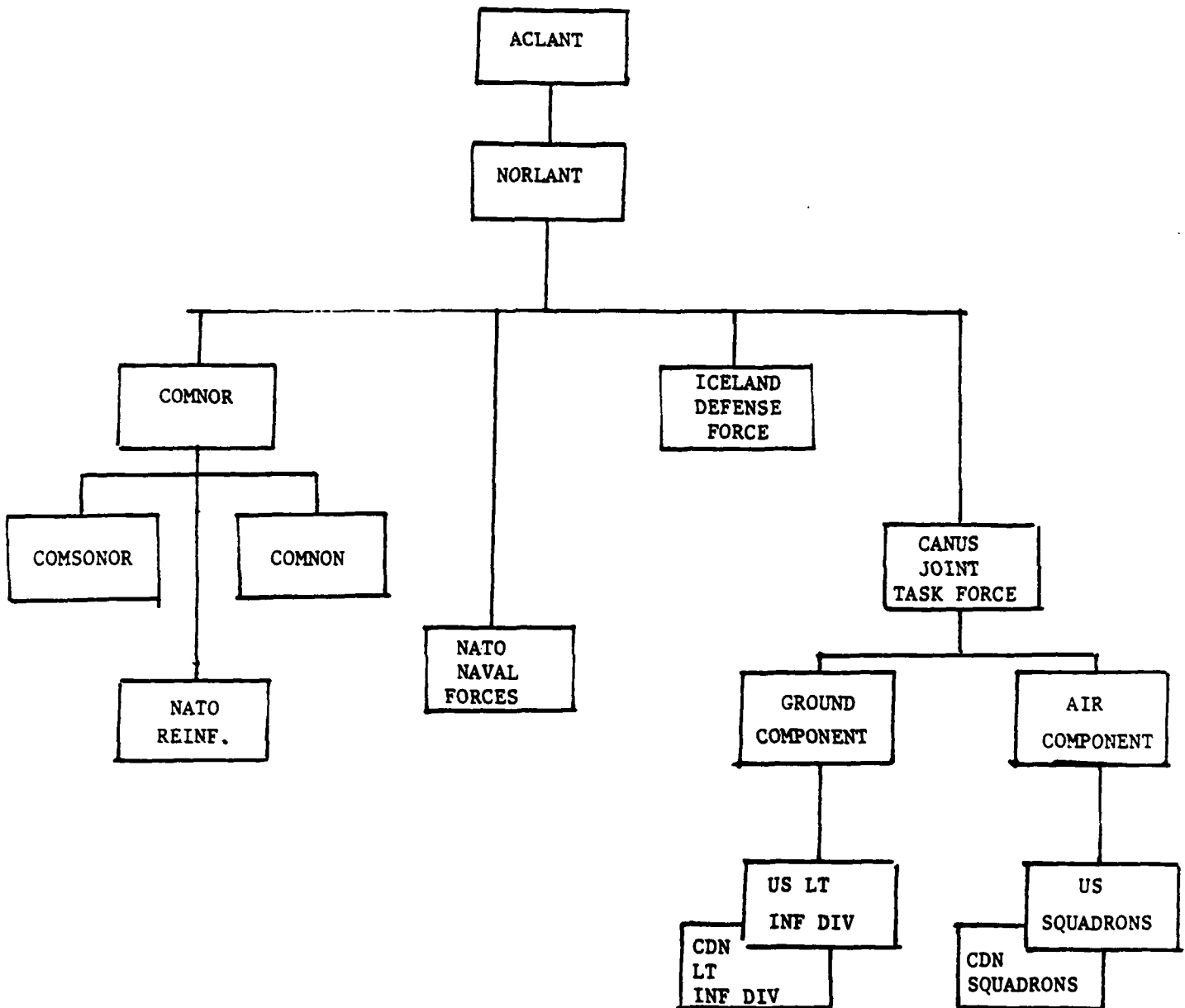
as the furthest defense outpost of North American defense.

STREAMLINING LINES OF COMMAND

The current NATO command system, which assigns the transatlantic SLOCs to Allied Command Atlantic (ACLANT)⁴⁴³ and Norway to Allied Command Europe (ACE)⁴⁴⁴ may in fact constitute a major impediment to North American reinforcement in the defense of Norway because high command of one is exercised from Norfolk while high command of the other is exercised out of Belgium. Redrawing the areas of responsibility for the Northern European Command (NEC) and assigning it to ACLANT could conceivably facilitate more responsive command and control and simultaneously raise the profile of North American, especially Canadian, participation.⁴⁴⁵

NATO should assess whether its command structure would be more effective in the 1990s and beyond with an expanded NORLANT area including Norway. Strategically, Norway is not really connected to the defense of Central Europe, but resembles more an island in the NORLANT area attached by a causeway to the USSR. Including Norway in the NORLANT area would go a long way toward synchronization of the defense of Norway with operations in Norwegian Sea. Moreover, such a command relationship could highlight the Canadian contribution (see chart 13). The land and air components of the redesigned NORLANT could include NATO commands in Norway, similar to COMSONOR and COMNOR, but could also include an Icelandic defense force (mainly tactical air and airfield defense units) and a Canadian-American joint task force (Canadian and American light infantry and tactical air units), with the mission of deploying allied brigades to Norway. It would certainly be appropriate for one or both of these units to be commanded by

Proposed NATO North Flank Command Structure



Canadian officers.

The peacetime function of this command structure would be to provide requirements to the U.S. and Canada for restructured, more deployable forces. It would also plan for the joint deployment and employment of the forces provided in the event of contingencies. Finally, it would schedule, plan, and supervise exercises to the northern region both to refine allied capabilities to respond to northern contingencies and to demonstrate allied resolve. At a minimum, these exercises should be conducted as frequently and in comparable scope to Soviet northern region exercises.

The potential advantages to such a redesigned command system are important. They would include a clear signal to the Soviets that their arms reductions and troop withdrawals in the central region have not lulled NATO to sleep regarding the significant threat on the north flank. They also would include a re-assertion of the alliance's transAtlantic character, showing that to all allies the defense of Europe and of North America were closely linked, and that the alliance had both the will and the capability to respond to a Soviet threat to even the most isolated and most out-numbered of its members. Finally, a heightened Canadian profile in the new northern command structure would reassert its commitment to North Atlantic security and prevent Canada's decline as an actor in Western security. With proper programming and support from the other allies, especially the United States, these advantages could be attained at an affordable cost. Moreover, the Canadian commitment to an ally with a population so similar to Canada's, in a role so clearly defensive, would be more likely to gather public support in Canada.

NORTHERN DEFENSE AND DISARMAMENT

A revised NATO strategy for the northern region would be unlikely to carry in Norway, Canada, or the United States if it were not tied to a strategy for arms control. For all parties, the most long-term stability will result if the density of arms in the northern region is significantly reduced. The greatest incentives toward northern allied solidarity would be a coordinated set of arms reduction objectives.

In a February 1990 visit to Moscow, U.S. Secretary of State James Baker announced a series of breakthroughs in Strategic Arms Reduction Treaty (START) negotiations, on sea-launched cruise missiles (SLCMs), air-launched cruise missiles (ALCMs) and anti-missile defenses.⁴⁴⁶ Here may be the beginning of a rift between American and Norwegian arms-control objectives. Secretary Baker announced that the Soviets have largely accepted a U.S. position that limits to SLCMs should not be established under the 6000 warhead ceiling permitted under START, but that each side should simply declare how many SLCMs it intends to deploy.⁴⁴⁷ This view is inconsistent with the views of former Norwegian Defense Minister Holst, who said that "it would be very much to the advantage of the West if we could eliminate sea-launched nuclear tipped....cruise missiles."⁴⁴⁸ Like Norway, Canada has also advocated specific limits on SLCMs. In October 1988, Canadian External Affairs Minister Joe Clark stated Canada's position: "Canada has advocated the negotiation of effective limits on air and sea-launched cruise missiles, weapons which could increasingly threaten U.S. directly as intercontinental missiles do now."⁴⁴⁹

The danger here is that a perceived divergence in objectives between the United States, Canada, and Norway will constitute a seam in alliance solidarity which the Soviets could exploit. As a part of a northern

strategy, NATO's members should coordinate its stance on disarmament so that a concession on the part of one does not threaten the others. Obvious subjects for consultation include the sea-based deterrent force, NATO's anti-submarine warfare capability, the attack submarine inventories on both sides, and the linkage between Soviet air, ground, and amphibious forces in the Kola Peninsula and the START process. The CFE experience suggests that attaining a consensus on these issues within the alliance will be time consuming, but will pay dividends in allied solidarity in the long run.

Though impossible to predict with absolute certainty, current developments suggest the following defense initiatives for Canada.

- Current military structures will eventually be inappropriate to European security, and for that reason no government will be able to justify their expense. New kinds of forces will have to be fielded.

- Reduced force levels and possible expended areas of security concern demand lighter, more mobile forces to respond to crises. Further, isolated regional crises will respond more positively to deployments of forces from middle powers than forces from superpowers.

- The United States has initiated studies for conversion of large elements of its force structure into readily deployable units with robust European combat capabilities. Efficiency would dictate that Canada (and other countries) collaborate with the U.S. to develop an effective, affordable combat capability.

- Strategic and intratheater transport resources should be pooled to efficiently support the rapidly deployable forces fielded.

- Command and control relationships should be revisited in light

of new European security realities, as both the tactical level (within Northern European Command) and the strategic level (possible realignment of Norwegian security responsibilities to ACLANT).

- Greater cooperation in defense efforts need to be accompanied by greater consultation in arms control in order to preserve allied solidarity.

SECTION VI

CONCLUSION

The strategic impact of the current developments in Europe probably have lowered the risk of war considerably at least for the next few years. NATO should use that respite to re-evaluate its military vulnerabilities to determine where and how to readjust the efforts of its member countries most efficiently in response to the new threats posed by a smaller but higher quality Soviet ground force supported by a larger and capable Soviet navy, and to develop strategic concepts to respond to crises likely to arise from the new political imperatives in Eastern Europe. Canada's decision to drop the CAST commitment and keep the deployment in Germany may have been appropriate for the 1987 threat scenario in which it was decided, but Norway's military importance in the 1990s and beyond, combined with the reality of Canadian policy and the impact of arms control, make it inappropriate for the out years. Now is the time to abandon the preoccupation with outdated strategies and think for the future. Moreover, all NATO's members must remain committed to the integrity of the Alliance. Among NATO's allies none has as long and distinguished a tradition of bilateral allied commitments than the U.S. and Canada. In this case, too, that tradition should be continued to ensure that European confidence in North America's will and ability to come to its aid when required is never shaken.

AUTHOR'S AFTERWORD

Although not within the scope of this study, the fact that it is being written by an American living in Canada during the constitutional crisis surrounding the Meech Lake accord begs a final comment. Without going into a great deal of detail, the Meech Lake accord is seen by the current Canadian government as essential to correcting the deficiencies of Canada's 1982 constitution which, some think, was concluded without adequate regard for Quebec. The accord's ratification deadline is in June 1990, and at this writing the positions of the opposing provinces have polarized and hardened. In Quebec, the Liberal Party and the Parti Quebecois have unanimously voted to reject any attempt to change the accord.⁴⁵⁰ On the other side, the province of Newfoundland has formally revoked its support for the accord,⁴⁵¹ and Manitoba and New Brunswick are also in opposition.⁴⁵²

The seriousness of this constitutional crisis is difficult for a non-Canadian to judge, but some Canadians are predicting that, if not resolved, it could begin the dissolution of the Canadian federation.⁴⁵³ Recent Gallup polls have indicated a growing trend of opinion anticipating the eventual separation of Quebec from Canada. Overall, 22 percent of Canadians polled think the confederation will break up, but in Quebec that figure is 43 percent, as opposed to 41 percent who do not think the confederation will break up, with 17 percent undecided.⁴⁵⁴ If the most pessimistic predictions come true, there will be no Canadian participation in European security because there will be no Canadian nation. This will suit neither the interests of the U.S. or of the Alliance.

It is difficult to see how the United States can contribute constructively to the resolution of this crisis, but there are American

policies that could make things worse. American actions which are perceived in Canada as insensitive to Canadian interests will submit the government to an extreme amount of domestic pressure. Added to the pressure of the Meech Lake accord, this pressure might undermine the chances to keep Canada together. For that reason, the period of Meech Lake is probably not an appropriate time to press the American case in a number of U.S.-Canadian sovereignty issues. There are, for example, American claims to transit rights through Canada's North West passage, but this is not the best time to pursue them. Likewise, this is not the time for the U.S. to turn a blind eye to American fishermen taking fish illegally from Canadian waters. Neither of these, nor a number of other issues, is worth the cost to the solidarity of the alliance which could result from a collapse of the Canadian nation.

Notes

¹Joel J. Sokolsky, Defending Canada. U.S. Canadian Defense Policies (New York: Priority Press Publications, 1989), p. 58.

²Joseph Jockel, Canada and NATO's Northern Flank (Toronto: Centre for International and Strategic Studies, 1986), pp. 39-41.

³Canada, Department of National Defence, Challenge and Commitment: A Defence Policy for Canada (Ottawa: Minister of Supply and Services, 1987), pp. 60-63. (Hereafter cited as DND Challenge and Commitment.)

⁴General Paul D. Manson, "Consolidation in Europe: Implementing the White Paper," Canadian Defence Quarterly, February 1988, pp. 21-30.

⁵DND, Challenge and Commitment, p. 63.

⁶Sokolsky, Defending Canada, pp. 50-51. See also George Lindsey, "Strategic Stability in the Arctic," Adelphi Papers 241 (London: Brassey's for the IISS, Summer, 1989), p. 49.

⁷Sokolsky, Defending Canada, p. 50. See also Danford W. Middlemiss and Joel J. Sokolsky, Canadian Defence. Decisions and Determinants (Toronto: Harcourt Brace Jovanovich 1989), p. 192.

⁸The Military Balance 1988-1989 (London: IISS, 1988), p. 55. See also Johanne Di Donato, et al, The Guide to Canadian Policies on Arms Control, Disarmament, Defence and Conflict Resolution (Ottawa: Canadian Institute for International Peace and Security, October 1989), p. 238.

⁹Ambassador John Halstead, "Of Mouths and Money," Forum, Conference for Defense Associates, vol. 2, no. 3, special issue, p. 22.

¹⁰DND, Challenge and Commitment, pp. 50-55.

¹¹CFE troop reduction proposals will be discussed in greater detail later in this paper.

¹²These geographical demographic and political data are extracted from Armed Forces Staff College publication 2C10, NATO Combined Operations Vol. II, chap. III, part I (Norfolk: National Defense University/Armed Forces Staff College, May 1989) pp. III-1 - III-33. Hereafter this work will be cited as AFSC pub 2C10.

¹³In a 1988 Rand Note, Factors Affecting the Military Environment of North Norway: Its History, International Relations, Physical Characteristics, and Balance of Military Forces (Santa Monica: Rand Corporation), LTC James G. Terry, USAF, asserts (page vii) that "the most favorable period for operations from a purely military point of view is the fall." From a tactical perspective he is right; in the fall the weather is still warm and dry and the light conditions are good. From an operational point of view, however, an attack on Norway would be conducted in order to conduct subsequent air operations over the Norwegian Sea. For

that reason, this study concludes that the best time to attack Norway is the spring, before the thaw, in order to be able to exploit the longer periods of daylight in the summer.

¹⁴J. J. Holst, "Norway's Role in the Search for International Peace and Security," published in Norwegian Foreign Policy in the 1980s (Oslo: Norwegian University Press, 1985), p. 144.

¹⁵T. K. Derry, A Short History of Norway (London: Allen and Unwin, 1957), p. 129.

¹⁶*Ibid.*, p. 203.

¹⁷R. Berg, "The Country We Expect Help From - England as Norway's Protector - 1905-1908," published in Forvars Studier (Defense Studies) IV (Oslo, Engers Boktrukkeri, 1985), pp. 165-68.

¹⁸J. Andenaes, et. al., Norway and the Second World War (Oslo: Johan Grundt Tanum Forlag, 1966), p. 11.

¹⁹Olav Riste, The Neutral Ally (London: Allen and Unwin, 1965), pp. 69-71.

²⁰Klaus Richard Bohme, The Defense Policies of the Nordic Countries 1918-1939 (Manhattan Ks, Military Affairs/Aerospace Historian, 1979), p. 2.

²¹*Ibid.*, pp. 18-20.

²²Monica Curtis (ed.), Documents on Internal Affairs. Norway and the War (New York: Oxford Press, 1941), p. 17.

²³Earl F. Ziemke, The German Northern Theater of Operations - Department of the Army Pamphlet No. 20-271 Washington, D.C.: US Government Printing Office, 1959), p. 6.

²⁴B.G. V Esposito, The West Point Atlas of American Wars vol. II, section 2 (New York: Praeger Publishers, 1964), p. 11.

²⁵*Ibid.* See also B.H. Liddel Hart, History of the Second World War (New York: G.P. Putnam's Sons, 1970), p. 56.

²⁶Ziemke, The German Northern Theater of Operations, pp. 14-15.

²⁷*Ibid.*, pp. 21-22.

²⁸*Ibid.*, p. 39.

²⁹*Ibid.*, p. 28.

³⁰*Ibid.*, p. 43.

³¹Ibid., pp. 7-10. See also Liddel Hart, History of the Second World War, pp. 54-56, where it is argued that Hitler felt he had insufficient time to wait for Quisling's subversion of the established government.

³²Liddel Hart, History of the Second World War, pp. 51-52.

³³Ziemke, The German Northern Theater of Operations, pp. 26-30.

³⁴Liddel Hart, History of the Second World War, p. 59 is the source for German strength; Ziemke, The German Northern Theater of Operations, pp. 44, 53, 107 for British strength. The two sources differ on some details.

³⁵Liddel Hart, History of the Second World War, p. 59.

³⁶Ibid., p. 59.

³⁷Ziemke, The German Northern Theater of Operations, p. 37. Liddel Hart, History of the Second World War, p. 59 differs in some details.

³⁸Ziemke, The German Northern Theater of Operations, p. 109.

³⁹Ibid., pp. 40-52.

⁴⁰Liddel Hart, History of the Second World War, p. 60.

⁴¹Ziemke, The German Northern Theater of Operations, pp. 65-80.

⁴²Esposito, The West Point Atlas of American Wars vol. II, sec. 2, p. 11b.

⁴³Ziemke, The German Northern Theater of Operations, pp. 77-81.

⁴⁴Ibid., pp. 87-108.

⁴⁵Ibid., pp. 315-17.

⁴⁶This account of operations against the Arctic (PQ) convoys is from Ziemke, The German Northern Theater of Operations, pp. 235-241.

⁴⁷VADM Friedrich Ruge, The Sea War (Annapolis: US Naval Institute, 1957), p. 273.

⁴⁸Ibid., p. 276.

⁴⁹Ibid., p. 272.

⁵⁰Ibid., p. 284.

⁵¹Allan Bullock, Hitler - A Study in Tyranny (New York: Perennial Library, 1971), pp. 467-468.

⁵²David Irving, The Destruction of Convoy PQ 17 (New York: Simon and Shuster, 1968), pp. 300-01.

⁵³Major-General M. Monin, "The Anti-Hitler Alliance: Facts and Fictions," Soviet Military Review, March 1982, pp. 40-41.

⁵⁴Thomas Ries, "Finland's Armed Forces...Isolated but Unbowed," International Defense Review, March 1984, pp. 263-270.

⁵⁵Derry, A Short History of Norway, pp. 257-58.

⁵⁶Berg, "The Country We Expect Help From - England as Norway's Protector," pp. 165-68.

⁵⁷Jan-Erik Radehed, "Swedish Forces to Aid Norway?," published in Forsvars Studier (Defense Studies) (Otta: Tano, 1986), p. 29.

⁵⁸*Ibid.*, p. 26.

⁵⁹*Ibid.*, p. 14. See also Derry, A Short History of Norway, p. 258.

⁶⁰Clive Archer, The Uncertain Trust (Oslo: Institutt for Forsvars studier, 1989), p. 11.

⁶¹Radehed, "Swedish Forces to Aid Norway?," p. 14.

⁶²Derry, A Short History of Norway, p. 258.

⁶³Kirsten Amundsen, Norway, NATO, and the Forgotten Soviet Challenge (Berkeley: Institute of International Studies, 1981), p. 9.

⁶⁴*Ibid.*, p. 11.

⁶⁵Radehed, "Swedish Forces to Aid Norway?," p. 37.

⁶⁶T. M. Hatland, "Nuclear Threats and Détente, the Soviet Union and Norway's Security Policy, 1953-1958," published in Forsvars Studier IV (Otta: Engerboktrukkeri, 1985), pp. 108-111.

⁶⁷Frank Branchley, Norway and Her Soviet Neighbor: NATO's Arctic Frontier (London: Institute for the Study of Conflict, 1982), pp. 3-8.

⁶⁸*Ibid.*

⁶⁹John Otto Johansen, Norway, the Soviet Union, and the Northern Areas (Norwegian Atlantic Committee, 1988), pp. 11-28.

⁷⁰*Ibid.*, p. 13.

⁷¹*Ibid.*, pp. 11-12.

⁷²*Ibid.*, p. 28.

⁷³Hatland, "Nuclear Threats and Détente, the Soviet Union and Norway's Security Policy, 1953-1958," pp. 108-111.

⁷⁴Derry, A Short History of Norway, p. 258.

⁷⁵John J. Linneham, Norwegian Security Determinants: Deterrence and Reassurance (Monterey: Naval Post Graduate School, 1984), p. 41.

⁷⁶Marion K. Leighton, The Soviet Threat to NATO's North Flank (New York: National Strategic Information Center, 1957), p. 90.

⁷⁷Quoted in Olav Riste, The Soviet Naval Threat and Norway (Oslo: Norwegian National Defense College), 1986, p. 16.

⁷⁸Thomas Ries, "Defending the Far North," (Published in International Defense Review, v. 17, no. 7, 1984), p. 873.

⁷⁹Adm of the Fleet Sir Peter Hill-Norton, No Soft Options, the Political-Military Realities of NATO (London: Hurst & Co., 1978), pp. 54-55.

⁸⁰These figures, and the others in this analysis, are taken from the Military Balance 1989-90, p. 208.

⁸¹Ragnhild Sohlberg, Analysis of the Ground Force Structures on NATO's Northern Flank (Santa Monica: Rand, 1980), pp. 10-19.

⁸²LCol T. Johnson, "Tailored Defense," published in Forum, 1/1988, pp. 37-39.

⁸³AFSC Pub. 2C10, pp. III-9, III-10.

⁸⁴AFSC Pub. 2C10, pp. III-10, III-11.

⁸⁵Johnson, "Tailored Defense," p. 38.

⁸⁶Ibid.

⁸⁷Sohlberg, Analysis of the Ground Force Structure on NATO's Northern Flank, p. 123.

⁸⁸Ibid., p. 31.

⁸⁹Richard Brody, "Deep Strike Technology and the North Flank," published in Paul M. Cole and Douglas M. Hart, Northern Europe. Security Issues for the 1990s (Georgetown: Center for Strategic and International Studies, 1986), pp. 106-111.

⁹⁰The Military Balance 1989-90, p. 72.

⁹¹AFSC Pub 2C10, pp. III-11-III-12.

⁹²Ibid., pp. III-12, III-13.

- ⁹³Thomas Ries, "Finland's Armed Forces -- Isolated but Unbowed," pp. 263-270.
- ⁹⁴AFSC Pub 2C10, p. III-62.
- ⁹⁵Ibid.
- ⁹⁶Ibid., p. III-59.
- ⁹⁷Ibid.
- ⁹⁸The Military Balance 1989-1990, pp. 86-87.
- ⁹⁹Ries, "Finland's Armed Forces," pp. 263-270.
- ¹⁰⁰Tomas Ries, "Combined Operations--The Swedish Approach to Defense," (International Defense Review, April 1983), pp. 413-420. See also M. G. Bowman, C. Richard, "Soviet Options on NATO's Northern Flank," (Armed Forces Journal International, April 1984), p. 88.
- ¹⁰¹The Military Balance 1989-1990, pp. 88-89.
- ¹⁰²Ries, "Combined Operations--the Swedish Approach to Defense," pp. 413-420.
- ¹⁰³Based on the figures in the Military Balance, 1989-90.
- ¹⁰⁴Radehed, "Swedish Forces to Aid Norway?," p. 29.
- ¹⁰⁵Sven Stray, Norwegian Foreign Policy and Security Policy in a Nordic Perspective (Oslo: Norwegian Atlantic Committee, 1985), pp. 5-6.
- ¹⁰⁶Olav Riste, The Soviet Threat and Norway (Oslo: Norwegian National Defense College, 1986), p. 1.
- ¹⁰⁷Quoted in Hill-Morton, No Soft Options, p. 63.
- ¹⁰⁸James Ries, "Defending the Far North," (International Defense Review, vol. 17, no. 7, 1984), pp. 873-880.
- ¹⁰⁹The Military Balance 1989-1990, p. 38.
- ¹¹⁰Ibid., p. 31. See also "Soviets Testing Aircraft Carrier, Sources Say," Globe and Mail, 14 December 1989, p. A22. See also "2d Soviet Carrier Fitting Out, Tbilisi Delays Trials," (Jane's Defense Weekly, 11 November 1989, p. 1002.
- ¹¹¹Ibid., p. 38.
- ¹¹²Ibid.
- ¹¹³Ries, "Defending the Far North," p. 876.

- 114 Ibid.
- 115 Military Balance 1989-1990, p. 38, and Ries, "Defending the Far North," p. 878.
- 116 "Kola Unveiled" (Jane's Defense Weekly, 13 September 1986, v. 6, no. 10), pp. 538-540.
- 117 The Military Balance 1989-1990, p. 38.
- 118 Ries, "Defending the Far North," pp. 878-879.
- 119 "Kola Unveiled," Janes Defense Weekly, 13 September 1986, pp. 538-540.
- 120 Jockel, Canada and NATO's Northern Flank, p. 13. See also Lindsey, Strategic Stability in the Arctic, pp. 64-65.
- 121 Jockel, Canada and NATO's Northern Flank, p. 13.
- 122 Brenchley, Norway and Her Soviet Neighbor, pp. 3-8.
- 123 Robbin F. Laird and Dale R. Harspring, The Soviet Union and Strategic Arms (Boulder and London: Westview Press, 1984), p. 42.
- 124 Ibid., pp. 40-41.
- 125 Ibid., p. 42. See also Ries, "Defending the Far North," p. 874.
- 126 Ibid., p. 875. Other more up-to-date warnings of the impact of reduced resources devoted to US Navy combatant warships are cited by David Evans, "Budget, Troop Cuts May Re-vamp Military," Chicago Tribune, 23 June 1989), and Stephen J. Shaw, "In Harms Way," (Defense World, August/September 1989), p. 60.
- 127 Adm Frank B. Kelso, "Defense of the Atlantic," printed in Canadian Defence Quarterly 1/1990, Feb. 1990, p. 13.
- 128 LtCol Douglas C. MacCaskill, "Norway's Strategic Importance," Marine Corps Gazette, February 1981, pp. 29-31. See also Maj. Gen (Ret) Richard C. Bowman, "Soviet Options on NATO's Northern Flank," Armed Forces Journal, April 1984, pp. 88-92; and "Soviet Strategy: Reaffirming the Bastion Doctrine (Jane's Defense Weekly, 27 January 1990), p. 147.
- 129 Bowman, "Soviet Options on NATO's Northern Flank," p. 92.
- 130 MacCaskill, "Norway's Strategic Importance," p. 30.
- 131 J. J. Holst, Norwegian Security Policy for the 1980's (Oslo: Norsk Uteurikspolitisk Institutt, 1982), p. 13.
- 132 MacCaskill, "Norway's Strategic Importance," p. 31.

- 133 Bowman, "Soviet Options on NATO's Northern Flank," p. 92.
- 134 "Soviets Testing Aircraft Carrier, Sources Say," Globe and Mail, 14 December 1989, p. A22.
- 135 Bowman, "Soviet Options on NATO's Northern Flank," p. 70.
- 136 Jon Kaskin, Director of the Strategic Sealift Division, US Naval Staff (OP-42), in an information briefing entitled "Strategic Sealift."
- 137 Harold Briley, "Soviets Will Conditionally Scrap Subs," (Defense News, 16 October 1989, p. 14.
- 138 Hans C. Erlandsen, "USSR Modernizes Northern Fleet with Addition of Akula-class Sub," (Defense News, 2 October 1989), p. 16. The Akula fires the SSN21 cruise missile, which can be launched from torpedo tubes while submerged, with either nuclear or conventional warheads capable of destroying Norwegian coastal batteries.
- 139 Ries, "Defending the Far North," p. 877.
- 140 Marion K. Leighton, The Soviet Threat to NATO's North Flank (New York: National Strategic Information Center, 1979), pp. 88-89.
- 141 This account of Soviet naval operations on the Norwegian coast is from CAPT Valdamer Shevchenko, "Fighting on the Sea Lanes," Soviet Military Review, January 1989, pp. 44-46. See also RADM A. Puskin, "Soviet Submariners in the War," Soviet Military Review, April 1983, pp. 37-39, and CAPT G. Ammon, "On the Enemy's Sea Communications," Soviet Military Review, June 1978, pp. 8-11.
- 142 Ammon, "On the Enemy's Sea Communications," p. 11.
- 143 Quoted in an interview published under the title "The Soviet Naval Shield," Soviet Military Review, July 1985, p. 3.
- 144 This account is from Colonel-General K. Grushevoy, "The Liberation of Northern Norway," Soviet Military Review, October 1969, pp. 47-49. See Also Colonel Nikolei Ivanov, "Liberation of Northern Norway," Soviet Military Review, October 1984, pp. 49-50.
- 145 Tonne Huitfeldt, NATO's Northern Security (London: Institute for the Study of Conflict #191, 1986), p. 1.
- 146 Kirsten Amundsen, Norway, NATO, and the Forgotten Soviet Challenge (Berkeley: Institute for International Studies, 1981), pp. 36-37.
- 147 Johnsen, Norway, the Soviet Union, and the Northern Areas, pp. 30-33.
- 148 Ibid.

- 149 Liddel-Hart, History of the Second World War, p. 44.
- 150 AFSC Pub. 2C10, pp. II-1 - II-11.
- 151 Ibid.
- 152 Ibid.
- 153 Ibid., pp. III-37, III-63.
- 154 The North Atlantic Treaty Organization Facts and Figures (Brussels: NATO Information Service, 1987), pp. 107-09.
- 155 AFSC Pub. 2C10, pp. V2-V4.
- 156 Leighton, The Soviet Threat to NATO's North Flank, p. 79.
- 157 Hill-Norton, No Soft Optic pp. 54-55.
- 158 The Military Balance 1970-71, pp. .
- 159 NATO Facts and Figures (Brussels: NATO Information Service, 1981), p. 140.
- 160 Rolf Tomnes, Integration and Screening, the Two Faces of Norwegian Alliance Policy 1945-1986 (Oslo: Norwegian National Defense College, 1986), p. 30-32.
- 161 Amundsen, Norway, NATO, and the Soviet Challenge, pp. 32-33.
- 162 Tomnes, Integration and Screening, pp. 31-31.
- 163 Amundsen, Norway, NATO, and the Soviet Challenge, pp. 32-33.
- 164 Ibid., p. 43.
- 165 Linnehan, Norwegian Security Determinants, p. 20.
- 166 Ries, "Defending the Far North," p. 879.
- 167 Ibid.
- 168 Miles Robertson, Reinforcing North Norway, the UK's Role (Aberdeen: Center for Defense Studies, 1987), pp. 19-24.
- 169 Archer, The Uncertain Trust, p. 38.
- 170 Tomnes, Integration and Screening, p. 32.
- 171 Major T. C. Linn, USMC, "Soviet Perceptions of the US Marine Corps," Amphibious Warfare Review (Fall, 9), p. 9.
- 172 Ibid., p. 8.

¹⁷³Sverre Hamre, quoted by Mark Iden, Turning Point 1978 - U.S. Policy and North Flank Security (Oslo: National Defense College, 1985), p. 11.

¹⁷⁴Maj. Thomas S. Jones, "Cold Weather Training Takes Priority," printed in the Marine Corps Gazette vol. 68, no. 12, pp. 28-52. In fairness to the U.S. Marine Corps, honest efforts have been made to improve in this area.

¹⁷⁵Gen. P. X. Kelly and Maj. Hugh K. O'Donnell, The Amphibious Warfare Strategy (U.S. Naval Institute, January 1986), p. 3.

¹⁷⁶Jockel, Canada and NATO's Northern Flank, p. 34.

¹⁷⁷Tomnes, Integration and Screening, p. 32.

¹⁷⁸Robertson, Reinforcing North Norway, the U.K.'s Role, pp. 19-24.

¹⁷⁹Jockel, Canada and NATO's Northern Flank, p. 34.

¹⁸⁰*Ibid.*, p. 35.

¹⁸¹Tomnes, Integration and Screening, p. 12.

¹⁸²DND, Challenge and Commitment, p. 61.

¹⁸³*Ibid.*, p. 43.

¹⁸⁴*Ibid.*, pp. 17-25.

¹⁸⁵The Military Balance 1989-90, pp. 56.

¹⁸⁶*Ibid.*

¹⁸⁷DND, Challenge and Commitment, p. 63.

¹⁸⁸*Ibid.*, p. 61.

¹⁸⁹Brenchley, Norway and Her Soviet Neighbor: NATO's Arctic Frontier, pp. 3-6.

¹⁹⁰DND, Challenge and Commitment, p. 21.

¹⁹¹Halstead, "Of Mouths and Money," p. 22.

¹⁹²Jockel, Canada and NATO's Northern Flank, pp. 26-27.

¹⁹³*Ibid.*

¹⁹⁴*Ibid.*

¹⁹⁵*Ibid.*

- 196 Ibid.
- 197 Manson, "Consolidation in Europe," p. 24.
- 198 LTC David E. Shaver, et. al., On Disarmament: The Role of Conventional Arms Control in National Security Strategy (Carlisle: U.S. Army War College, 1989), p. 4.
- 199 Ibid., p. 8.
- 200 Ibid., p. 9.
- 201 Ibid.
- 202 For a status report on the Soviet Union's unilateral force reductions, see the US House of Representatives Committee on Armed Services Report, "Status of the Soviet Union's Unilateral Force Reductions and Restructuring of its Forces," 16 October 1989.
- 203 "Gorbachev Rids Baltic of A-Subs," Whig Standard, 25 October 1989, p. 1.
- 204 Shaver, On Disarmament, pp. 89-90.
- 205 Ibid.
- 206 The Military Balance 1989-1990 gives the following figures for stationed forces in Europe: The US - 326,400 (p. 24), Belgium - 26,600 (in the FRG) (p. 56), Canada - 7,100 (p. 57), France - 52,700 (in the FRG) (p. 62), The Netherlands - 5,700 (in the FRG) (p. 71), The UK - 69,700 (in the FRG) (p. 82).
- 207 Colin Mackenzie, "Bush Proposes Further Troop Cuts," Globe and Mail, 1 February 1990, p.A1. See also Basic Reports from Vienna, British American Security Information Council, 11 April 1990, no. 7, p. 2.
- 208 "Hungary, Poland Join Call for Pullout of Soviet Troops," Globe and Mail, 19 January 1990, p. 1. See also "Soviets to Withdraw Their 50,000 Troops, Hungarian PM Says," Globe and Mail, 24 January 1990, p. 1.
- 209 Sally Jacobsen, "Pact Needed for Stability, Hungarian Tells Meeting," Globe and Mail, 20 January 1990, p. A5.
- 210 "Some Members May Leave Warsaw Pact - Akhromeyev," Defense Daily, 14 February 1980, p. 245.
- 211 Imre Karacs, "Hungary Considers NATO Membership," Ottawa Citizen, 22 February 1990, p.A12. See also "Hungary's Law Makers to Consider Proposal to Leave the Warsaw Pact," Globe and Mail, 10 May 1990, p. A9.
- 212 "New Order In Europe Called For," Globe and Mail, 7 April 1990, p. A4.

- 213 Shaver, On Disarmament, pp. 26-34.
- 214 Patrick E. Tyler, et. al., "You Can Stop Worrying About a Warsaw Pact Blitzkrieg," Washington Post, weekly edition, 4-10 December 1989, p. 16.
- 215 "NATO Ministers Order Nuke Study," Whig Standard, 25 October 1989, p. 9.
- 216 Quoted in John Newhouse, War and Peace in the Nuclear Age (New York: Alfred A. Knopf, 19889), p. 402.
- 217 Michael R. Gordon, "Nukes Not Needed to Defend Europe: Report," The Whig Standard, 14 March 1990, p. 12
- 218 Lawrence Freedman, "The Politics of Conventional Arms Control," Survival, September/October 1989, pp. 392-393.
- 219 "NATO Kills N. Missiles Planned for Germany," Ottawa Citizen, 3 April 1990), p. A10. See also Colin Mackenzie, "US Will Not Modernize Nuclear Arms in Europe," Globe and Mail, 4 May 1990, pp. A1, A2.
- 220 Oliva Ward, "Nuclear Cuts Urged in Europe," Toronto Star, 17 February 1990, p. A11. See also "NATO to Cut Nuclear Weaponry in Europe," Globe and Mail, 28 April 1990, pp. A1, A2.
- 221 "Short-range Weapons to Stay," Whig Standard, 1 May 1990, p. 13. See also Miro Cernetig, "NATO Cites Soviet Threat for Cautious Nuclear Strategy," Globe and Mail, 11 May 1990, pp. A1, A2.
- 222 Shaver, On Disarmament: The Role of Conventional Arms Control in National Security Strategy, p. 109 cites the expectation that the Warsaw Pact will propose serious short range nuclear force reductions upon completion of CFE agreements, or perhaps as a conditions on which CFE agreements will be contingent.
- 223 Gerhard Wetting, "Deterrence, Missiles, and NATO in Soviet Foreign Policy," Aussenpolitik, 4th quarter, 1989, pp. 321-325.
- 224 "NATO, US Still See Lance as Vital Despite Changes in Eastern Europe," Defense News, 20 November 1989, p. 44.
- 225 Shaver, On Disarmament, pp. 95, 98.
- 226 Ibid., p. 24. See also Richard Sharpe, "Despite Perestroika, Soviet Naval Capability Continues to be Formidable," Sea Power, January 1990, p. 41.
- 227 Ibid.
- 228 "Soviets Keeping Ammunition and Fuel in Europe for Emergencies, U.S. Says," The Whig Standard, 11 January 1990, p. 3.

229 Patrick Brogan, "Moscow's Forgotten Pocket of Misery," Globe and Mail, 4 April 1990, p.A8.

230 Shaver, On Disarmament: The Role of Conventional Arms Control in National Security Strategy, p. 48 describes the Soviet negotiating position that reduction of US naval forces may be a bargaining chip that NATO must concede in order to win Warsaw Pact reductions in air and land forces. Symmetrical naval reductions have yet to be discussed. The Military Balance 1989-1990, p. 31, documents improvements in Soviet naval quality.

231 Lindsey, Strategic Stability in the Arctic, pp. 64-65. The Canadian response to Soviet proposals was reaffirmed before Prime Minister Mulroney's recent visit to Moscow. See Paul Mooney, "Canada, Soviets differ sharply at Conference on Arctic Peace," The Whig Standard, 24 October 1989, p. 28.

232 Basic Reports from Vienna, 11 April 1990, no. 7, p. 2.

233 James J. Coghlon Jr., "Soviet Air Forces: The Fighters," Defense Electronics, October 1989): 90-96. Also, see Soviet Military Power, pp. 50-53 and 97. See also Sharpe, "Despite Perestroika, Soviet Naval Capability Continues to be Formidable," pp. 36-41.

234 Leighton, The Soviet Threat to NATO's North Flank, p. 88.

235 "Talking of NATO and the Warsaw Pact," Globe and Mail, 14 February 1990, p. A6.

236 Shaver, On Disarmament, p. 68.

237 "Norway's Defense Cuts Wait," Reuters Wire Copy, 20 February 1990.

238 "The Russians Would Not Come By Train," (International Defense Review, no. 9, 1989) p. 1160

239 Interview in Janes Defense Weekly, 21 April 1990, p. 764.

240 Quoted in a speech, The New Atlanticism, given to the US National Press Club, 23 February 1990, recorded by US National Public Radio.

241 John Gray, "NATO Thrown into Confusion by Sudden Prospect of Peace," Globe and Mail, 19 January 1990, p. A4.

242 Ibid.

243 Matthew Fisher, "CDN Supporters Cheer Wide Margin of Victory," Globe and Mail, 19 March 1990, p.A9.

244 The Military Balance. 1989-1990, p. 47.

245 Richard Gwyn, "United Nation Will Overshadow Its Allies," Globe

and Mail, 11 March 1990, p. H5. See also Jeffrey Simpson, "Europe's New Giant," Globe and Mail, 27 March 1990, p. A7.

246 Hans-Dietrich Genscher, "Germans Seek Unity Within Framework of Peaceful, Stable Europe," Toronto Star, 11 March 1990, p. H7.

247 Bob Hepburn, "Support for One Germany Within NATO," Toronto Star, 11 March 1990, p. H3.

248 Ibid. The Soviet position on German neutrality is apparently not universally accepted even within the Soviet Union. See "NATO Role for Germany a Stumbling Block," Globe and Mail, 5 May 1990, p. A5, where Soviet Major General Geli Batenin argues that German nonalignment would destabilize Europe.

249 Gray, "NATO Thrown into Confusion by Sudden Prospect of Peace."

250 "Cut Strength of Military After Unity," Globe and Mail, 23 February 1990, p. A4.

251 "Genscher Urges Germany to Renounce Use of Arms," Globe and Mail, 7 April 1990, p. A4.

252 Basic Reports from Vienna, 11 April 1990, no. 7, p. 1.

253 "The Power Projection Shortfall," Air Force Magazine, 1988. Printed in Implementing National Military Strategy (Carlisle, U.S. Army War College, September 1989), pp. 295-99, and Gen. John Galvin in Theresa Hitchens, "Galvin Warns Against Jumping Gun on Trimming European Budgets," Defense News, 7 August 1989, pp. 3, 28.

254 Ibid.

255 "Defense-cutting Frenzy Stirs Uncertainty in Services," Navy Times, p. 5. See also Peter Adams, "US Sealift Plan Would Incorporate Commercial Shipping Industry," Defense News, 6 November 1989, p. 25.

256 Stephen D. Shaw, "In Harm's Way," (Defense World Aug/Sept 1989: 60-63).

257 The Military Balance 1988-1989, p. 55.

258 NATO Composite Force (pamphlet), (Norway, Solaas Grofisk).

259 Ibid.

260 Ibid.

261 Harriett Critchley, Director of the University of Calgary's Strategic Studies Program, quoted by Bob Bergen, "Local Soldiers Face 'Critical' Norway Task," Calgary Herald, 10 December 1989, p. C1.

262 Ibid.

- 263 Shaver, On Disarmament, p. 89.
- 264 NATO Facts and Figures, p. 137.
- 265 Hitchens, "Galvin Warns Against Jumping Gun on Trimming European Budgets," pp. 3, 28.
- 266 Theresa Hitchens, "Eurogroup Emphasizes Need to Mention NATO Unity," (Defense News, 4 December 1989), p. 15.
- 267 Ibid.
- 268 "Canada Should Maintain Its Role in NATO, Mulroney Says," Whig Standard, 26 December 1989, p. 8.
- 269 Ibid.
- 270 "Get Ready to Cut NATO Commitment, PM Urged," The Montreal Gazette, 4 December, 1989, p. B-1.
- 271 Ross Howard, "Expert Argues for Changes in Canada's Defence Policy," The Globe and Mail, 10 January 1990, p. 5.
- 272 Major General (Ret) L. V. Johnson, "Trapped in Europe," Forum, Conference on Defense Forces 1/1989, pp. 29-30. See also Leonard V. Johnson, "Why Canada Should Let Down Its Defenses," Globe and Mail, 10 April 1990, p. A7.
- 273 John Marteinson, "A Canadian Role in the Defence of Iceland," Canadian Defence Quarterly, October 1989, p. 5.
- 274 The Military Balance, 1989-1990, p. 53.
- 275 Harriet W. Critchley, "Does Canada Have a Defence Policy," Canadian Defence Quarterly, October 1989, pp. 7-14.
- 276 Paul Koring, "Keeping the Peace, a Logistical Night Mare," Globe and Mail, 10 October 1989, p. A5.
- 277 "Under Funding Hinders Peacekeepers," Whig Standard, 24 January 1990, p. 32.
- 278 Olivia Ward, "West Germans Battle Plan to Expand Lahr Air Base," Toronto Star, 22 April 1990, p. A24.
- 279 Miro Cernetig, "Crashes Prompt Military to Ponder Withdrawing CF-18s From Europe," Globe and Mail, 30 April 1990, p. A3.
- 280 "Defense Chief Questions Canada's Value to NATO," Whig Standard, 18 January 1990, p. 7.
- 281 NATO Facts and Figures, p. 264.

- 282 Sokolsky, Defending Canada, p. 4.
- 283 Richard Gwyn, "Canada Must Be Wary of Isolation From Europe," Toronto Star, 8 April 1990, p. H9.
- 284 NATO Armed Forces, pp. 8, 14.
- 285 Ibid.
- 286 John Cruikshank, "Keeping a Foot in Europe," Globe and Mail, 16 February 1990, p. A7.
- 287 Shaver, On Disarmament, pp. 6-7.
- 288 Norway's Security and European Foreign Policy, European Movement in Norway, June 1980, published in the US by Columbia University Press, New York), p. 12.
- 289 Peter Adams and Theresa Hitchens, "NATO Officials Call for Direct EC Relations," (Defense News, 18 December 1989), p. 1.
- 290 Jeffery Simpson, "Canadians and the Cold War," Globe and Mail, 5 December 1989, p. A6.
- 291 "Cut Back Defense Budget, 71% Say," Toronto Star, 15 February 1990, p. 1.
- 292 "Forces Fear More Than Budget Cuts," Globe and Mail, 16 February 1990, p. A9.
- 293 Murray Campbell, "Forces Plagued by Threatened Cuts," Globe and Mail, 19 February 1990, p. A2.
- 294 Murray Campbell, "Deficit, Changing Europe Require New Role for Forces," Globe and Mail, 15 February 1990, p. A1.
- 295 Murray Campbell, "Military Beseized by Doubts on Future," Globe and Mail, 16 February 1990, p. A1.
- 296 Published in the Whig Standard, 19 April 1990, p. 3.
- 297 Ibid.
- 298 George Oake, "Liberal Delegates Flock to Cretien on Prairies," Toronto Star, 25 March 1990, p. A18. See also Carol Goer, "Cretien Has Won, Rival Concedes," Toronto Star, 22 April 1990, p. A18.
- 299 Jean Theresa Riley, "Jean Cretien mène tandis que Paul Martin treine derrière Shiela Copps," L'Express de Toronto, 13-19 March 1990, p. 1.
- 300 Shelley Page, "Get Our Troops Out of Europe, Cretien Says," Toronto Star, 9 March 1990, p. A3.

- ³⁰¹Printed in the Whig Standard, 28 February 1990.
- ³⁰²Murray Campbell, "Disarming the Forces," Globe and Mail, 17 February 1990, p. D1.
- ³⁰³Joel J. Sokolsky, "Soviet Naval Aviation and the Northern Flank: Its Military and Political Implications," Naval War College Review, Jan-Feb 1981, pp. 37-38.
- ³⁰⁴Holst, "Norway's Role in the Search For International Peace and Security," p. 147.
- ³⁰⁵Leighton, "The Soviet Threat to NATO's North Flank," p. 53.
- ³⁰⁶In the previously cited speech delivered to the National Press Club, broadcast on U.S. National Public Radio, 23 February 1990.
- ³⁰⁷Hilary Allen, Norway and Europe in the 1970s (New York: Columbia University Press, 1979), p. 208.
- ³⁰⁸Norway's Security and European Foreign Policy in the 1980s, European Movement in Norway, June 1980, published in the US by Columbia University Press, New York, p. 61.
- ³⁰⁹*Ibid.*, p. 76.
- ³¹⁰R. C. Longworth, "Political Unity Vowed for Europe," Hartford Courant, 28 April 1990, pps. A1, A5.
- ³¹¹Norway's Security and European Foreign Policy in the 1980s, p. 76.
- ³¹²*Ibid.*, p. 12.
- ³¹³Oystein Nareng, "Oil and Gas; a New Dimension in Norwegian Foreign Policy," published in Norwegian Foreign Policy in the 1980s (Oslo: Norwegian University Press, 1985), p. 111.
- ³¹⁴*Ibid.*
- ³¹⁵Leighton, The Soviet Threat to NATO's North Flank, p. 54.
- ³¹⁶Erik Solem, Scandinavia and the EC - Political, Economic, and Strategic Considerations (Ottawa: Operational Research and Analysis Establishment, 1983), p. 23.
- ³¹⁷*Ibid.*, p. 25.
- ³¹⁸*Ibid.*, p. 28.
- ³¹⁹Redehed, "Swedish Forces to Aid Norway?," p. 37.

320 Sverker Astrom, Sweden's Policy of Neutrality (Stockholm, Swedish Institute, 1977), pp. 6-7.

321 Paul M. Cole, "Sweden and the Soviet Union" published in Paul M. Cole and Douglas M. Hurt, Northern Europe. Security Issues for the 1990s (Georgetown: Center for Strategic and International Studies, 1986), p. 33. Mr. Cole cites a comparison of Swedish polling responses to the following questions.

	1973	1983
Is the U.S. unfriendly to Sweden	47% yes	10% yes
Is the U.S. a direct threat	3% yes	3% yes
Is the Soviet Union unfriendly to Sweden	15% yes	43% yes
Is the Soviet Union a direct threat	4% yes	37% yes

322 Jeff Sallot, "Cutting Loose Economically," Globe and Mail, 17 March 1990, p. D3.

323 Henry Milner, "Social Democracy, A Model No More?," Globe and Mail, 3 March 1990, p. D1.

324 Andrew Rosenthal, "US Softens Tone of Criticism on Soviet Action in Lithuania," Whig Standard, 28 March 1990, p. 2.

325 Ibid.

326 Jeff Sallot, "Soviets Send Convoy of Tanks Down Main Street of Vilnius," Globe and Mail, 23 March 1990, p. A1.

327 Ibid.

328 Cole and Hart, Northern Europe. Security Issues for the 1990s, p. 4.

329 NTB (National Norwegian News Service) wire copy, 7 March 1990.

330 Johansen, Norway, the Soviet Union, and the Northern Areas, p. 37.

331 Paul Mooney, "Canada, Soviets Differ Sharply at Conference on Arctic Peace", Whig Standard, 24 October 1989, p. 28.

332 "Crowded Airfields of Northern Norway," Jones Defense Weekly, 25 17 March 1990, pp. 492-94.

333 "UK Defence Budget Almost Static of £21.2 Billion," Janes Defense Weekly, 25 November 1989, p. 1133.

334 Ibid.

335 Jonathan Alford, "The Soviet Naval Challenge," published in Cole and Hart, Northern Europe. Security Issues for the 1990s, pp. 54-55.

336 Dave Todd, "Cold War Becomes Cold Peace," Whig Standard, 15 March 1990, pp. 1-2.

337 Heinz von zur Goltz, "The FRG's Contribution to the Defense of Northern Europe," published in Cole and Hart, Northern Europe, Security Issues for the 1990s, p. 80.

338 Frank Brenchley, Norway and Her Soviet Neighbor: NATO's Arctic Frontier, pp. 308.

339 Nils Orvik, Scandinavian Security: Challenge and Response (Kingston: Queen's Centre for International Relations, 1978), p. 74.

340 Leighton, The Soviet Threat to NATO's North Flank, pp. 48-49.

341 Robert K. German, "Norway and the Bear," (International Security, Fall 1982), pp. 71-72.

342 Ibid.

343 Leighton, The Soviet Threat to NATO's Northern Flank, p. 49.

344 "Ein herzlicher Empfang" (Bundeswehr Aktuell, 20 February 1990), p. 7.

345 "Wo der Nordpol nahe ist" (Bundeswehr Aktuell, 1 March 1990), p. 2.

346 Ibid.

347 "Wo man soldaten lieber kommen als gehen sieht" (Stuttgarter Zeitung, 16 February 1990), p. 14.

348 Ibid.

349 Article 87 of the Federal Republic's constitution limits deployment of West German forces to the defense of the Federal Republic itself. This provision has been more broadly interpreted with West German entry into NATO in light of article 5 of the North Atlantic Treaty, which has been cited as the justification for deployment of West German support units into other NATO areas in the Allied Command Europe Mobile Force and in the force package to replace the CAST Brigade. The only truly deployable combat force of any size in the West German army is the airborne division, and it is committed to other missions in defence of the Federal Republic.

350 The Military Balance, p. 63.

351 Bundeswehr Aktuell, 1 March 1990, p. 7.

352 "Wo man soldaten lieber kommen als gehen sieht," p. 14.

353 Janes Defense Weekly, 21 April 1990, p. 764.

- 354 The New Atlanticism, 23 February 1990.
- 355 "The Russians Would Not Come By Train..." (International Defense Review, 9, 1989), p. 1160.
- 356 Ibid.
- 357 Ibid., p. 1161.
- 358 "Military Officials: Now is the Time for a New Strategy" (Army Times, 26 February 1990), p. 26.
- 359 Ibid.
- 360 Caleb Baker, "Army Proposal Outlines More Mobile, Flexible Force" (Defense News, 11 December 1989), p. 4.
- 361 Ibid.
- 362 Forces/Capabilities Hand Book, vol. I (Carlisle Barrack, PA: US Army War College, 1989), pp. 2-20.
- 363 Caleb Baker, "Army Cuts Funding for Heavy Force Modernization Components" (Defense News, 15 January 1990), p. 14.
- 364 Caleb Baker, "ASM Plan Emphasizes Army's Shift Toward Low Intensity Conflict" (Defense News, 19 February 1990), p. 32.
- 365 Caleb Baker, "Army's New Warfighting Doctrine Calls for More Agile, Independent Brigades in Future," (Defense News, 8 January 1990), p. 16.
- 366 Ron Lowman, "Canada Puts Lid on Defense Spending" (Defense News, 25 February 1990), p. 6.
- 367 Ibid.
- 368 Ibid.
- 369 MG. K. R. Foster, "Total Force 2002" (Forum, 2/1988), p. 15.
- 370 Ibid.
- 371 Ibid.
- 372 Ibid.
- 373 Jockel, Canada and NATO's Northern Flank, pp. 34-35.
- 374 Special Committee of the (Canadian) Senate on National Defence, Canada's Land Forces, 31 October 1989, pps. 67-69.

³⁷⁵By Nils Orvik of Queen's University, cited in Jockel, Canada and NATO's Northern Flank, pp. 42-43.

³⁷⁶"The Power Projection Shortfall," Air Force Magazine, 1988. Published in Implementing National Military Strategy (Carlisle Barracks, U.S. Army War College, 1989), p. 296.

³⁷⁷Guy C. Swann III, "Theater Campaign Planning for NATO's Northern Region" (Parameters, March 1990)p. 60 proposes that the Norwegians be convinced of the necessity of basing heavier foreign forces in Norway.

³⁷⁸Solem, Scandinavia and the EC - Political, Economic, and Strategic Considerations, p. 28.

³⁷⁹Holst, "Norway's Role in the Search for International Peace and Security," p. 145.

³⁸⁰Ibid.

³⁸¹J. J. Holst, The Nordic Balance and the Northern Flank: A Norwegian Perspective (Norsk Utenriks politisk Institut, November 1983), p. 9.

³⁸²Holst, "The Russians Would Not Come by Train," p. 1161.

³⁸³Janes Defense Weekly, 21 April 1990, p. 769.

³⁸⁴The New Atlanticism, 23 February 1990.

³⁸⁵Liddell Hart, History of the Second World War, p. 220.

³⁸⁶Ibid., p. 221.

³⁸⁷Jockel, Canada and NATO's Northern Flank, p. 22.

³⁸⁸NATO Facts and Figures, pp. 264-65.

³⁸⁹Halstead, "Of Mouths and Money," p. 123.

³⁹⁰Cole and Hart, Northern Europe, Security Issues for the 1990, p. 3.

³⁹¹Halstead, "Of Mouths and Money," p. 22.

³⁹²LCol. G. D. Hunt, "Reinforcing the NATO North Flank: The Canadian Experience," (Canadian Defence Quarterly, Spring 1987), p. 38.

³⁹³Ibid.

³⁹⁴LtGen. B. C. Hosmer, USAF, "Operational Art: The Importance of the Operational Level of War," (PHALANX, The Bulletin of Military Operations Research, September 1988), p. 4.

- 395 Ibid., p. 5.
- 396 Ibid.
- 397 Ibid.
- 398 Ibid.
- 399 LtGen. (ret) Philip D. Shutler, USMC, "Thinking About Warfare" (Marine Corps Gazette, November 1989), p. 22.
- 400 Ibid.
- 401 Ibid., p. 18.
- 402 Ibid.
- 403 Canada's Land Forces, pp. 43-54.
- 404 1989-1990 Green Book (Arlington, VA: Association of the US Army, October 1989), pp. 203-207.
- 405 Canada's Land Forces, pp. 43-54.
- 406 1989-1990 Green Book, pp. 203-207.
- 407 "Army Light Infantry Weapons in Panama: A Foreign Profile" (Army, February 1990), p. 13.
- 408 Ibid.
- 409 Ibid.
- 410 Ibid.
- 411 Caleb Baker, "Marines, Army to Swap LAVs for Launchers," Defense News, 1 January 1990, p. 20.
- 412 The Military Balance 1989-1990, p. 56.
- 413 Baker, "Marine Corps Delivers LAVs to Army in Exchange for 11 Rocket Launchers," Defense News, 1 January 1990, p. 4.
- 414 Casper W. Weinberger, Annual Papers to the Congress, FY 1984 (U.S. Government Printing Office, 1 February 1983), p. 126.
- 415 Baker, "Marines, Army to Swap LAVs for Launchers," p. 20.
- 416 Ken Romain, "Timely Canadian Order Kept LAV Lines Rolling," Globe and Mail, 17 October 1989, pp. B32, 34.
- 417 Ibid.

- 395 Ibid., p. 5.
- 396 Ibid.
- 397 Ibid.
- 398 Ibid.
- 399 LtGen. (ret) Philip D. Shutler, USMC, "Thinking About Warfare" (Marine Corps Gazette, November 1989), p. 22.
- 400 Ibid.
- 401 Ibid., p. 18.
- 402 Ibid.
- 403 Canada's Land Forces, pp. 43-54.
- 404 1989-1990 Green Book (Arlington, VA: Association of the US Army, October 1989), pp. 203-207.
- 405 Canada's Land Forces, pp. 43-54.
- 406 1989-1990 Green Book, pp. 203-207.
- 407 "Army Light Infantry Weapons in Panama: A Foreign Profile" (Army, February 1990), p. 13.
- 408 Ibid.
- 409 Ibid.
- 410 Ibid.
- 411 Caleb Baker, "Marines, Army to Swap LAVs for Launchers," Defense News, 1 January 1990, p. 20.
- 412 The Military Balance 1989-1990, p. 56.
- 413 Baker, "Marine Corps Delivers LAVs to Army in Exchange for 11 Rocket Launchers," Defense News, 1 January 1990, p. 4.
- 414 Casper W. Weinberger, Annual Papers to the Congress, FY 1984 (U.S. Government Printing Office, 1 February 1983), p. 126.
- 415 Baker, "Marines, Army to Swap LAVs for Launchers," p. 20.
- 416 Ken Romain, "Timely Canadian Order Kept LAV Lines Rolling," Globe and Mail, 17 October 1989, pp. B32, 34.
- 417 Ibid.

- 418 Haglund, Canada's Defence Industrial Base, pp. 3-9.
- 419 Robert Van Steenburg, "An Analysis of Canadian-American Defense Economic Cooperation: The History and Current Issues" (published in Canada's Defence Industrial Base, p. 196.
- 420 Ibid.
- 421 Ibid., p. 97.
- 422 Ibid.
- 423 Ibid.
- 424 "The Power Projection Shortfall," p. 296.
- 425 Barbara Amouyal, "Air Force May Give C-17 a New Job Description," Defense News, 31 July 1989, p. 12.
- 426 Forces/Capabilities Hand Book. Volume II Weapons Systems (Carlisle Barracks: U.S. Army War College, 1989), p. 7-3.
- 427 Benjamin F. Schenmer, "Airlift, Sealift in Short Supply at Very time Need Grows Fastest," published in Implementing National Strategy, p. 306.
- 428 Ibid.
- 429 Gen. Duane H. Cassidy, USAF, "Transportation: Indispensable to our Forward Defense Strategy," published in Implementing National Military Strategy, p. 281.
- 430 Ibid.
- 431 Philip Finnegan, "General Stresses to Panel Need for C-17, Extra Sealift Capability, Defense News, 26 February 1990, p. 7.
- 432 Army Focus, November 1989, p. 8.
- 433 Colin Mackenzie, "Pentagon Plans Stealth Bomber Cuts as Part of \$35 Billion Budget Overhaul," Globe and Mail, 28 April 1990, p. A4.
- 434 Holst, "The Russians Would Not Come By Train," p. 1161.
- 435 Christopher Conliffe, "The Permanent Joint Board on Defense, 1940-1988," published in David G. Haglund and Joel J. Sokolsky, "The U.S.-Canada Security Relationship (Boulder, CO.: Westview Press, 1989), p. 145.
- 436 Ibid., p. 150.
- 437 Ibid., p. 151.

- ⁴³⁸Ibid., pp. 156-58.
- ⁴³⁹Ibid.
- ⁴⁴⁰Ibid., pp. 158-62.
- ⁴⁴¹Ibid., p. 163.
- ⁴⁴²Joel J. Sokolsky, "The Parting of the Waves? The Strategy and Politics of the SSN Decision," published in The U.S.-Canada Security Relationship, p. 268.
- ⁴⁴³NATO Armed Forces (Carlisle Barracks: U.S. Army War College, 1989), p. 32.
- ⁴⁴⁴Ibid., p. 26.
- ⁴⁴⁵In Swan, "Theater Campaign Planning for NATO's Northern Region," a similar suggestion is made, except that the subordinate command created is recommended to be assigned to ACE. This author feels that the ultimate responsible commander for the Atlantic is ACLANT, and therefore a new northern command should be assigned to ACLANT.
- ⁴⁴⁶Robert C. Toth, "3 Arms Pact Obstacles Overcome, Baker Says," Los Angeles Times, 10 February 1990, p. A1.
- ⁴⁴⁷Ibid., p. A13.
- ⁴⁴⁸"The Russians Would Not Come By Train," p. 1161.
- ⁴⁴⁹The Guide to Canadian Policies on Arms Control, Disarmament, Defense, and Conflict Resolution (Ottawa: Canadian Institute for Peace and Security, 1989, p. 4.
- ⁴⁵⁰Rheal Seguin, "Liberals, PQ Joins Forces to Shut Door on Any Changes to Meech," Globe and Mail, 6 April 1990, P. A3.
- ⁴⁵¹Eric Siblin, "Quebec or Newfoundland? Ministers Believe We'll Have to Choose," Whig Standard, 2 April 1990, p. 8.
- ⁴⁵²Ibid.
- ⁴⁵³See, for example, Russ Laver, et. al., "Canada in Crisis," McLeans, 12 March 1990, pp. 18-29 or Arden Furlong and Ted Cadell, "Canada on the Brink of Disappearing," Globe and Mail, 26 March 1990, p. A7.
- ⁴⁵⁴Published in the Whig Standard, 3 May 1990, p. 8.